

Social Trends and the Schools

A COMMUNITY ANALYSIS
FOR USE IN
EDUCATIONAL PLANNING

March, 1941

DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION, NEWARK, NEW JERSEY

M. J. C.

SOCIAL TRENDS AND THE SCHOOLS

A COMMUNITY ANALYSIS

FOR USE IN

EDUCATIONAL PLANNING

MARCH, 1941

DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION, NEWARK, NEW JERSEY

Free Public Library, Newark, N. J.

TABLE OF CONTENTS

PART I - INTRODUCTION AND SUMMARY OF FINDINGS

School Planning and Community Needs	1
Summary of Findings and Some Educational Implications	5

PART II - STATISTICAL ANALYSES AND SUPPORTING DATA

A Changing Population	16
Migration	18
Excess Births Over Deaths	22
Future Population of the City	22
Composition of Population	27
School Population Changes	29
Variations in Home Environments	40
Comparison of Superior and Inferior Environments	44
Relation of Environment to Change in Population	45
Births and Environment	46
Distribution of Age Groups	54
Characteristics of Population	56
Composition of Population	56
Intelligence	56
Binet Pupils	57
Youths not in School	61
Delinquency	61
Social Groups Outside the Schools	64
School Facilities	74
Buildings	74
Playgrounds	78

Gift. Board of Educ. 5/91

ACKNOWLEDGEMENTS

The preparation of this report would not have been possible without the cooperation of many individuals and agencies throughout the City. To these persons and organizations, the Department of Reference and Research is deeply indebted.

Grateful acknowledgement is made to the following groups for their assistance:

Boy Scouts of America,
Robert Treat Council
Court Street Branch of the Young
Men's Christian Association
Girls Scouts of America
National Youth Administration
Newark Board of Education -
All Schools and Departments
Newark City Planning Project
Newark Department of Health
Newark Department of Public Affairs -
City Clerk's Office
Newark Housing Authority
Newark Museum
Newark Public Library
New Jersey State Housing Authority
Social Service Bureau
Sojourner Truth Branch of the Young
Women's Christian Association
Superintendent of Schools - Catholic
Diocese of Newark
United States Bureau of Census
Welfare Federation of Newark
Works Progress Administration
Young Men's Christian Association
Young Men's and Young Women's
Hebrew Association

PART I

INTRODUCTION

AND

SUMMARY OF FINDINGS

SCHOOL PLANNING AND COMMUNITY NEEDS

Most citizens are aware of the many significant changes which are occurring in the social and economic life of the nation. The country as a whole is moving gradually from a period of rapid expansion of population to one of stationary or decreasing numbers. The birth rate is decreasing. Industrial mechanization has eliminated the need for immigration of foreign labor. The automobile has opened up many new areas for living. Mobility has increased rapidly.

Urban communities throughout the nation are being seriously affected by these changes. Necessary adaptations of established social, economic, and political organizations to declining populations and to a shifting population composition are difficult to make. Some cities have already experienced reductions in total population. Many more cities are faced with this prospect in the near future. Plans must be made to meet new needs imposed by these changes. The plans must grow out of intensive, scientific study if cities are to maintain their integrity and reduce economic disturbances to a minimum.

Social and economic trends, and changes in population and industry, must be viewed realistically. No amount of wishful thinking will draw new populations to slum areas or industry to blighted districts. Within any one community the population flow is away from the

less desirable areas to the more desirable neighborhoods, while inter-city migration is associated more closely with movements of industry and employment opportunities. On the whole, population changes throughout the nation may be considered to be beneficial. These changes offer a basis for raising the standard of living. A careful analysis of social and economic changes and trends will assist in establishing a practical basis on which to plan for the future.

Newark cannot claim exemption from the effects of these trends. As a large industrial center, Newark is frequently confronted with changes in population and industry before such changes are felt in other urban centers, Newark, therefore, should be a leader in the adjustment process during this period of transition from expansion to stability.

Significant steps have already been taken in Newark to meet new community needs. The several public housing projects provide an excellent example of the forward movement. The expansion of educational, recreational, and cultural opportunities will necessarily follow improvements in physical environment. Emphasis on these elements of community life will assure growth, perhaps not so much in size as in quality.

An analysis of community needs and their relation to the school program leads to the major conclusion that education must necessarily move hand in hand with the social, economic, and political forces. The schools cannot be

isolated from life itself. Problems concerning health, nutrition, housing, parks and recreational centers, industry, occupational opportunities, taxation, migration, birth trends, and city planning all have a bearing on long-time educational planning. Recognition should be given to the need for coordination of the work of all community agencies concerned with such problems.

It is essential for every agency and lay group interested in the future of Newark to work in cooperation with every other agency and for each to coordinate its work with the work of others. This type of coordination is essential for good administration but not for that alone. It is essential for the preservation of ideals and the attainment of goals which each agency has established for itself. The time may come, as it has in many other cities, when all community social and economic agencies will not be able to obtain the financial support necessary to carry on their work. Coordination and cooperation at present will go far toward eliminating the threat to existence of any of the vitally important agencies.

The proper solutions to these problems are not to be arrived at by individual opinion but rather by the most painstaking scientific research. The social, physical, and biological sciences are contributing much to the expansion of understanding of the educational process. In recent years, educational research has demonstrated the need for reconsideration of the place of the school in

society, the methods of teaching, the content of curricula, and the design of plant facilities. The needs and wants of individuals, their families, and their social groups are being more accurately interpreted today than ever before in history. The future development of Newark schools will depend, to a very large degree, on how thoroughly adaptations are made in the light of these developments.

It is the purpose of this preliminary report to present the results of demographic studies which have been made during the current school year by the Department of Reference and Research of the Board of Education. It is hoped that such studies will enable citizens, public officials and educators to develop a factual base for discussion of improvements of the content and scope of education. Readers are reminded that group statistics do not and cannot possibly reflect individual problems. They are of real value in analyzing neighborhood and community developments, but they must be supplemented by studies of individual situations in attempting to solve individual problems.

Caution must be used in interpreting statistical data. Before drawing inferences it would be well to make sure that the definition of the statistic under question is clearly understood. The Department of Reference and Research offers its assistance to individuals or groups who would like further interpretation or guidance in the analysis of any of the facts presented herewith.

SUMMARY OF FINDINGS AND SOME EDUCATIONAL IMPLICATIONS

This summary of findings and some of their educational implications follows the order of presentation of the analyses in subsequent parts of this report. Supporting data for each statement may be found by referring to the page noted after each finding.

Population Changes

1. Emigration has exceeded immigration in Newark for at least two decades. During the years 1920 to 1930 the loss in population due to migration was 18,328 and during the years 1930 to 1940 the loss was 30,905. (Page 18)

2. Net emigration from 1930 to 1939 in excess of 10 per cent of the population was found in Wards 4, 5, 6, 10, 12, 14, and 15. Only two wards, namely Wards 9 and 11, showed any net immigration and these increases were so small as to be practically insignificant. (Page 21)

3. The birth rate, including only residents of the city, decreased from 28 births per thousand population in 1920 to 14 per thousand in 1940. (Page 21) The excess of births over deaths was only 13,240 during the entire decade 1930 to 1940. Wards 2 and 4 had an excess of deaths over births. (Page 20)

4. The population of Newark in 1950 has been estimated at 415,248, after considering many influences which are counteracting the present rate of decrease. (Page 26)

If the present rate of decrease in population were to continue the 1950 population would be only 380,000.

(Page 22)

5. These changes in total population coincide with changes in population composition. The per cent of males in the population has increased. The per cent of Negroes has increased. The per cent of foreign-born whites has decreased. (Page 27)

Education Implications of Population Changes

It is essential that measures be taken in educational planning to assure increase in opportunities for children, if the City is to attract young families and thereby maintain itself as a balanced residential community. Such planning should include modernization of school buildings, greater provision for recreation, reduction in class size, expansion of educational opportunities, improvements in curricula and teaching.

It should be quite apparent that money saved through curtailment of building and recreational programs is offset to a large degree by emigration of young families who find better opportunities for their children in other communities.

School Population Changes

1. The ratio of children enrolled in public school to total number of children in the population drops off rapidly after 15 years of age. It was found that the number of children 15, 16, 17, and 18 years of age in public school were 97, 70, 47, and 19 per cent, respectively,

of the enrollments at 14 years of age. (Page 34)

2. If all the youths 15, 16, and 17 years of age were to remain in public school the enrollments would increase approximately 40 per cent. The attainment of such a situation would depend on the expansion of educational opportunities beyond graduation, changes in curriculum offerings, increase in plant facilities, and economic security for those families that rely on their children's labor for income. (Page 34)

3. The enrollment in elementary school, Kindergarten to Grade 8 inclusive, is expected to drop from 53,453 in 1940 to 45,572 in 1945 and 44,337 in 1950. The enrollment in high school, Grades 9 to 12 inclusive, is expected to drop from 18,923 in 1940 to 16,248 in 1945 and 12,876 in 1950. The changes in high-school enrollment are, of course, subject to the qualifications of the foregoing paragraph. (Page 37)

Educational Implications of Declining School Population

The importance of these trends may be emphasized by translating the enrollments into numbers of teachers. A rough estimate based on present teacher-pupil ratios indicates that there will probably be need for 1389 elementary-school teachers in 1945 and 1324 in 1950 compared with 1622 in 1940. Estimates for high schools indicate a probable need for 589 teachers in 1945 and 466 in 1950 compared with 695 in 1940. It is to be expected that the teacher-salary budget will be reduced

approximately 5 per cent by 1945 with no significant change beyond that year, if the present salary schedule and retirement age are maintained.

Declining enrollments do not always result in need for fewer school buildings. The facts relating to movement of population among wards tend to indicate that the future load of school children will be located in districts not now adequately served by school buildings. Actually, therefore, new building facilities may be needed on account of redistribution of children, even though enrollment decreases.

Variations in Home Environments

1. A composite index of 15 elements of home and neighborhood environment was developed for 319 districts within the City. The distribution of districts according to their indices indicated that few neighborhoods within the City could be considered as possessing superior environmental conditions, while a very large number were found with poor or inferior conditions. (Page 40)

2. Approximately 50 per cent of Newark's population is living in environments classified as poor, very poor, or inferior. (Page 42)

3. The largest decreases in population are occurring in the less desirable districts while only slight increases in population are to be found in the more desirable situations. (Page 45)

4. Emigration from districts below the median of environmental scores is a very desirable movement. However, it also represents a vital change in the social and economic structure of the City. Emigration is taking place in all wards in the central and eastern sections of the City. One might expect that industry was moving into these sections. But on the contrary, factory building permits during the years 1935 to 1939 indicate a tendency for industrial establishments to migrate to the better environmental districts. Factory demolitions and building permits are approximately the same in number in the poorer areas.

5. Fifty-six per cent of the births are in homes located in poor, very poor, or inferior environments. Only 14 per cent of the births are to be found in the superior or good environments. A similar distribution was found for children 5 to 14 years of age. (Page 54)

Educational Implications of Variations in Environment

The influence of these variations on the design of the future educational program is apparent. The impacts of poor environment made during early childhood create a tremendous responsibility for the schools in later years of the children's lives.

The schools of the City of Newark are obligated to provide equal educational opportunities for all children living in the City. Equal opportunity has come to mean that each child shall be given an education equal to that given

any other child of like ability and interest, within the range of offerings in the public school system.

The offerings of the schools are largely dependent upon the goals to be achieved through education. Public demand has extended these goals during recent decades. The schools have been criticized for not developing in youths knowledges and skills which would enable them to secure work. A century ago, such responsibilities were attached to the home. Likewise, many laymen have expressed the opinion that the schools must be assigned the tasks of developing civic responsibility, of creating more pleasant human relationships, and of promoting the personal well-being of every individual.

If these goals for education are recognized by citizens, today, as the essential outcomes of schooling, then the school system must orient itself accordingly. Equal opportunity must be provided all children to achieve these goals. However, the goals outlined cannot be attained by the same type of school which was originally designed merely for the purpose of offering mastery in certain subject-matter fields. For example, a feeling for civic responsibility on the part of a child cannot be developed by memorizing the contents of a textbook or by saluting the flag. It can only be developed through a complete and unified program, the effect of which will be felt in every aspect of the child's life. The program must be so broad and so impressive that the child feels that only by fulfillment of the responsibilities of citizenship can he attain its privileges.

The ability to become a responsible citizen is not measured by I. Q. tests. Good citizens are to be found at all levels of mental capacity. This ability and its complementary interest factor are more likely to grow out of the impacts on the child of those things which surround him in his daily life. The influence of adults, the uplift and depression attributable to physical environment, the frustrations and encouragements found in life at home, the personality of the school teacher, and the physical condition of school plant all affect the attitudes of children toward citizenship, work, personal development, and human relationships. Because of these many elements which are related to the achievement of the goals of the public schools, it is necessary to develop the school program with full cognizance of the factors outside the school which may tend to bolster or nullify school efforts.

Equal opportunity for all children to develop as responsible citizens, economic producers and consumers, and desirable democratic human beings will not be established until such a time as the ability and interest of the children so to do has been developed. These abilities and interests grow out of the impacts of the environment, both human and physical, which surrounds the child in the home, neighborhood, community, school, and church.

Future educational planning should take into consideration the variations in needs and wants of children. Such variations are largely based on the differences in environment, both human and physical, found in home and neighborhood life outside the school. School curricula, plant facilities, and administration should be varied throughout the City in terms of these variations in needs.

Youths Not in School

1. Fifty-eight per cent of the youths not in school live in wards where the environmental score is below the median score for the City. (Page 61)

2. The distribution of juvenile delinquency cases corresponds very closely with the distribution of youths 15 to 18 years of age not in school. (Page 63)

Educational Implications

It is clear that much thought should be given to the possibility of increasing educational and recreational opportunities for youths not now in school. The solution may be found in variation of high-school programs to meet the differentials in needs and wants of youths according to their social and economic status. Obviously, the expansion of the traditional academic curriculum would have little influence on this situation.

Social Groups

A study of the distribution of membership in seven of the principal social agencies in the City indicated that membership, for the most part, is drawn from the middle social-economic group.

Educational Implications

There can be no criticism of the agencies on this score. The reasons for this condition are probably related to the difficulty of securing cooperation, leadership, and adequate finance in the poorer areas. In view of the vital social importance of the programs offered by these agencies,

the question may reasonably be asked: Is it necessary for tax-supported agencies to give cooperation and assistance which will enable these organizations to extend their programs in areas which cannot support them?

School Facilities

1. Two residential areas in the City are not now properly served by elementary schools. These are the Dayton Street district, including the Seth Boyden Court Housing project, and the district including the Stephen Crane Housing project at the northern end of the City. (Page 74) A new school is being planned for the Dayton Street district which will probably be ready for use early in 1942.

2. The elementary schools in practically all sections of the City have been erected in such close proximity, one to the other, that the districts which each should serve are not clearly defined. When elementary schools are built according to a well-studied plan, each unit serves an optimum area, and fewer buildings are needed. (Page 75)

3. The map showing the locations of high schools also indicates overlapping of the areas which each school might properly serve. (Page 76)

4. The elementary schools of the City have been rated by the use of the Strayer-Engelhardt Score Card. These ratings indicate that the good elementary-school buildings serve only those neighborhoods of the City which are rated as good or superior on the environmental rating

previously discussed. The entire central section of the City, where children are most dependent on the public schools for their education and recreation, are served by poor and inferior school buildings. (Page 79)

5. Only 5 elementary school districts in the City have playground space exceeding 40 square feet per pupil and supervised all year. These districts are located in the better environmental neighborhoods. Considering that the optimum playground space established by educational and recreational experts is about 100 square feet per pupil, it is clear that even the best situations in Newark are below standard. (Page 80)

6. In the City of Newark, 13,920 elementary-school children live more than one-quarter mile from any school playground. Of these 6,170 children come from homes in poor, very poor, or inferior environments where there is little provision for recreation in the home. (Page 82)

Educational Implications of Analyses of School Facilities

The need is great for improvement in school buildings and playgrounds. Many of the personality and behavior problems both in and out of school may be attributed to poor educational and recreational facilities. This apparent lack should be a spur to intensive future planning.

The problem of caring for children at the Stephen Crane Housing project and the adjacent districts should be given consideration.

The abandonment of the several elementary-school buildings rating less than 300 should be considered. New

buildings should be erected only after an extensive study which will assure proper distribution of buildings and economical administration.

New high-school facilities which will awaken an interest in youth to return to school should be planned. Consideration should be given to replacement of the traditional academic curriculum with work-experience units to more nearly meet the needs of a large percentage of the youth of Newark.

The number of playgrounds supervised all year is small. Plans should be made to make play spaces available to children at all times and in all sections of the City. Recreation must move forward with unprecedented expansion of facilities, if the personal qualities of Newark youth are to be maintained at a high level.

PART II

STATISTICAL ANALYSES

AND

SUPPORTING DATA

A CHANGING POPULATION

Newark is among those communities in the nation which have already decreased in population. The trends in national, state, county, and city population are compared in Graph No. 1. In the past the economic foundation of many communities was based largely on an expansion of population and industry. The adjustment of this foundation to decreasing populations and industrial migration is not as simple as it is essential.

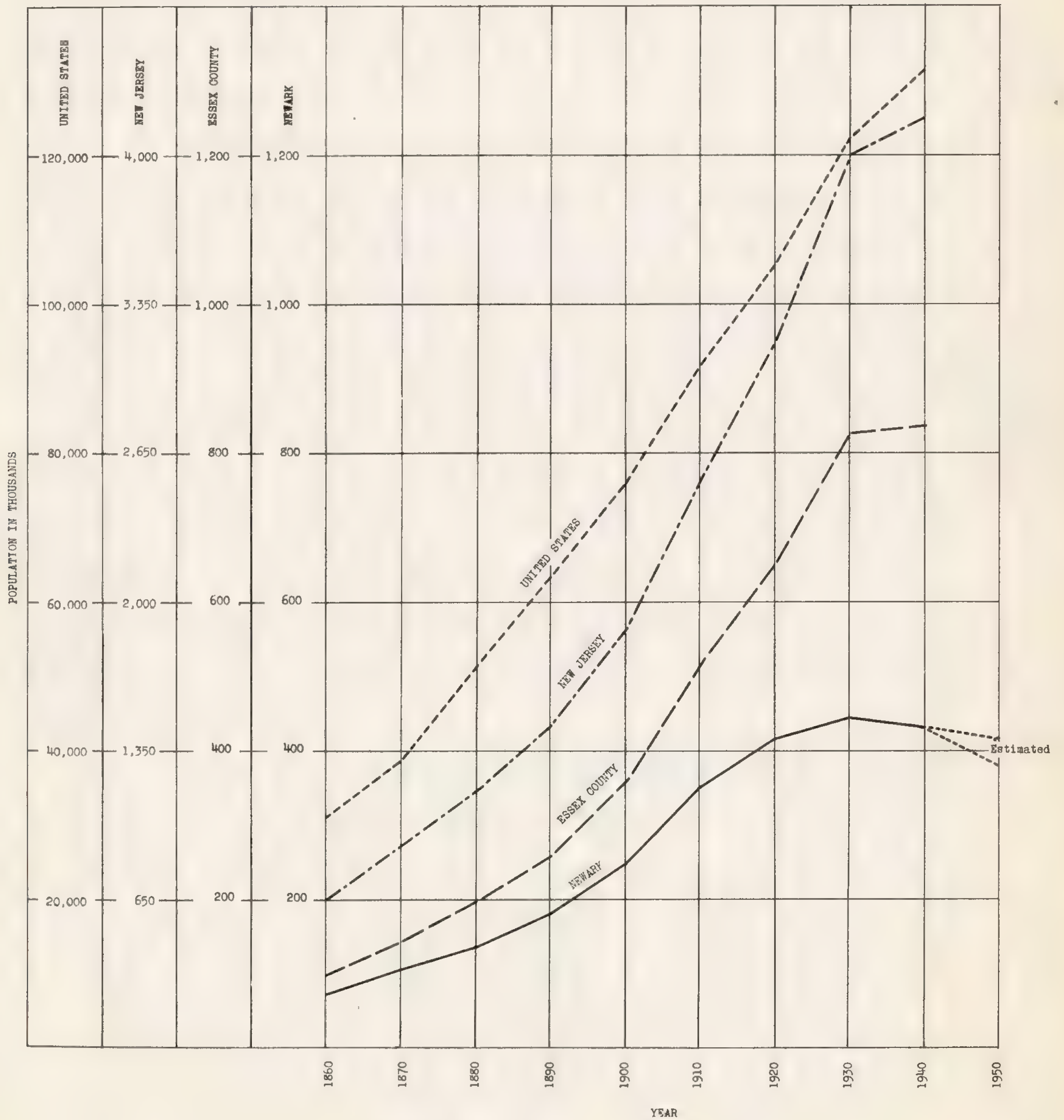
There are certain definite factors which contribute to urban population decline. These are:

1. Improved transportation, including the automobile, which allows people to live in residential areas some distance from their place of employment.
2. Increase in mobility of people making possible gross shifts in population following employment opportunities.
3. Decrease in the excess of births over deaths.
4. Decrease in birth rate.
5. Decrease in the potential number of mothers.
6. Failure of cities to maintain the same desirable living conditions as existed during periods of expansion.
7. Difficulty in securing employment, especially by youths. This tendency is being offset temporarily by the defense industrial program.

POPULATION TRENDS

1860 TO 1950

UNITED STATES, NEW JERSEY, ESSEX COUNTY, AND NEWARK



Graph No. 1

Migration

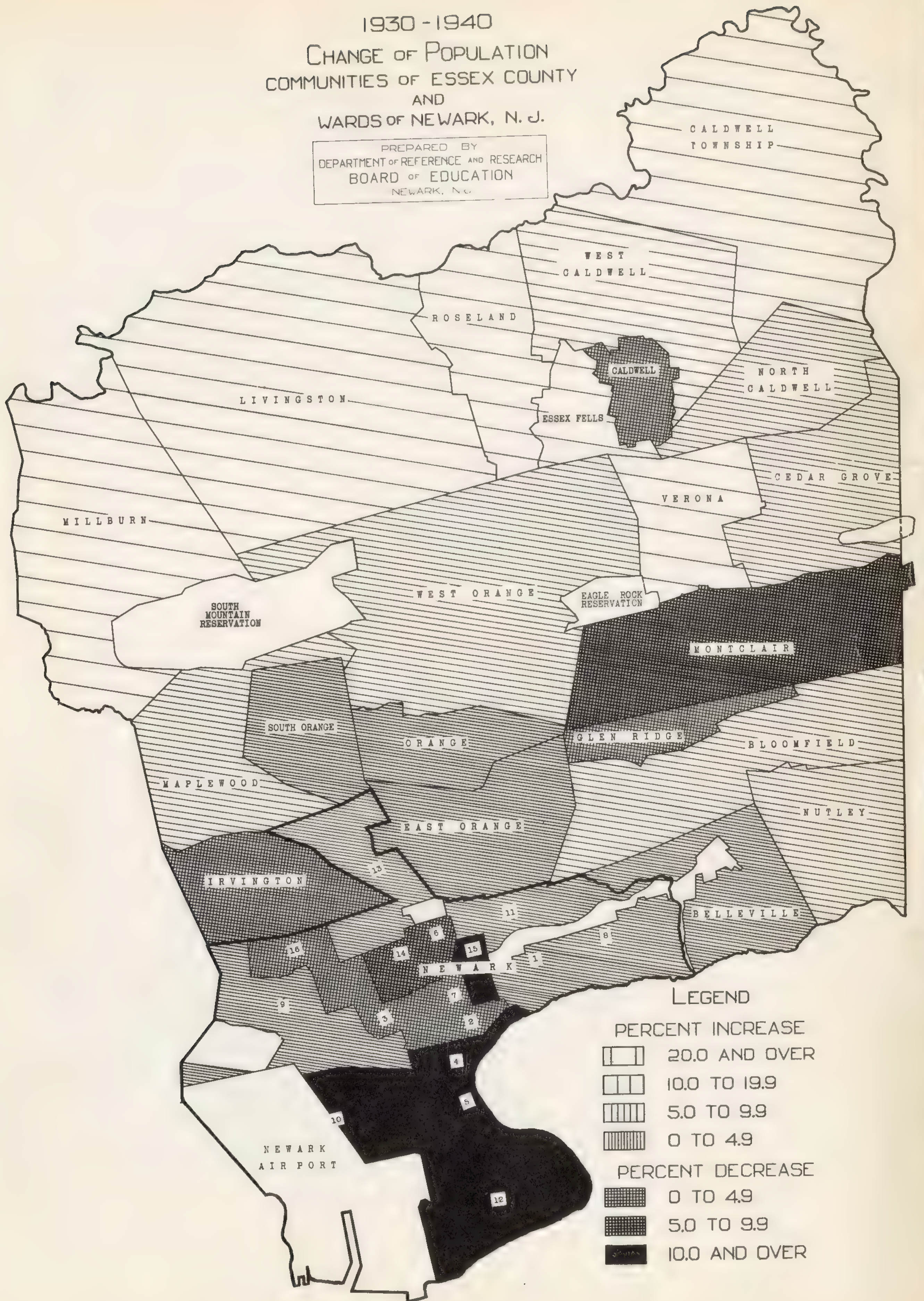
Map No. 1 shows the changes in population among communities of Essex County and wards of Newark during the decade 1930 to 1940. A study of the map indicates the tendency for emigration to occur in the older areas of the City while immigration occurs in the less densely populated suburban districts.

The movement from the City to the suburbs began with the advent of the automobile and good highways. Table 1 shows that although the population of the City increased during the decade 1920 to 1930 emigration had already begun. During that decade there was a net migration of 18,328 people out of the City. In spite of this loss, Newark showed a net increase in total population of 27,813 people. During the decade 1930 to 1940 the total population decreased by 12,577 and the net emigration increased from 18,328 to 30,905 people. The net migration rate for 1930-39 was 7.0 per cent as compared with 4.4 per cent for the previous decade.

Tables 1 and 2 break down the migration tendencies by wards for the past two decades. It is evident that in the former decade Wards 8, 9, 11, 13, and 16 showed growth due to immigration while all other wards showed emigration. However, in the decade just past only two wards showed any net immigration and the increases were so small as to be practically insignificant. Because of the limited opportunities for expansion, it is doubtful that any factor, aside

1930 - 1940
CHANGE OF POPULATION
COMMUNITIES OF ESSEX COUNTY
AND
WARDS OF NEWARK, N. J.

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N. J.



LEGEND

PERCENT INCREASE

	20.0 AND OVER
	10.0 TO 19.9
	5.0 TO 9.9
	0 TO 4.9

PERCENT DECREASE

	0 TO 4.9
	5.0 TO 9.9
	10.0 AND OVER

Map No. 1

TABLE 1
POPULATION CHANGES BY WARDS 1920 TO 1940
NEWARK, NEW JERSEY

Ward	Total Population			Change in Population*		Excess Births Over Deaths** (Residents Only)		Net Migration***	
	1920	1930	1940	1920-29	1930-39	1920-29	1930-39	1920-29	1930-39
1	30047	26268	26813	- 3779	+ 545	+ 5896	+ 2435	- 9675	- 1890
2	17014	11812	11307	- 5202	- 505	+ 103	+ 442	- 5305	- 63
3	35343	26616	25863	- 8727	- 753	+ 3161	+ 590	- 11888	- 1343
4	12450	6805	5329	- 5645	- 1476	- 308	- 577	- 5337	- 899
5	20863	17928	15474	- 2935	- 2454	+ 2855	+ 927	- 5790	- 3381
6	20335	21226	19272	+ 891	- 1954	+ 1379	+ 611	- 488	- 2565
7	17102	14167	14092	- 2935	- 75	+ 1762	+ 578	- 4697	- 653
8	31077	39098	39301	+ 8021	+ 203	+ 2942	+ 1569	+ 5079	- 1366
9	34698	60222	62714	+ 25524	+ 2492	+ 4098	+ 2250	+ 21426	+ 242
10	22754	20321	18189	- 2433	- 2132	+ 4283	+ 1880	- 6716	- 4012
11	20976	27621	28913	+ 6645	+ 1292	+ 1296	+ 881	+ 5349	+ 411
12	25426	21722	19454	- 3704	- 2268	+ 3219	+ 1416	- 6923	- 3684
13	38396	56795	57663	+ 18399	+ 868	+ 5022	+ 1901	+ 13377	- 1033
14	36112	32104	29866	- 4008	- 2238	+ 5448	+ 2131	- 9456	- 4369
15	16010	13774	11824	- 2236	- 1950	+ 1393	+ 520	- 3629	- 2470
16	35921	45858	44686	+ 9937	- 1172	+ 3592	+ 1570	+ 6345	- 2742
City Total	414524	442337	429760	+ 27813	- 12577	+ 46141	+ 18240	- 18328	- 30905

(*Decrease in Population
(**Excess Deaths Over Births
(***Emigration

Minus sign indicates

TABLE 2
MIGRATION, BIRTH, AND DEATH RATES BY WARDS 1920 TO 1940
AND PRELIMINARY ESTIMATES 1950
NEWARK, NEW JERSEY

Ward	Net Migration Rate*			Resident Birth Rate per 1000			Resident Death Rate per 1000			
	1920-29	1930-39	1940-49	1920	1930	1940	1920	1930	1940	1950 Estimate
1	- 32.2	- 7.2	- 5.0	39.3	24.1	15.6	12.3	9.6	7.9	7.8
2	- 31.2	- .5	- 5.0	15.5	13.1	12.6	15.0	14.4	17.2	17.0
3	- 33.6	- 5.0	- 5.0	29.1	19.2	19.9	12.4	17.1	16.4	16.2
4	- 42.9	- 13.2	- 15.0	16.2	13.4	13.3	18.3	25.1	23.5	23.2
5	- 27.8	- 18.9	- 20.0	37.0	18.9	15.4	16.0	10.4	10.1	10.0
6	- 2.4	- 12.1	- 12.0	20.9	15.3	15.4	12.6	10.4	12.0	11.9
7	- 27.5	- 4.6	- 10.0	29.6	19.9	16.0	16.8	14.5	11.4	11.3
8	+ 16.3	- 3.5	+ 1.0	25.2	18.2	15.3	11.8	10.7	11.2	11.1
9	+ 61.8	+ 3.4	+ 3.0	25.7	13.9	12.2	11.1	8.4	8.2	8.1
10	- 29.5	- 19.7	- 20.0	35.9	22.7	16.5	15.1	9.9	7.8	7.7
11	+ 25.5	+ 1.5	+ 2.0	22.0	16.5	13.9	13.9	10.9	9.8	9.7
12	- 27.2	- 17.0	- 12.0	42.8	21.5	13.8	11.3	11.3	8.1	8.0
13	+ 34.8	- 1.8	+ 1.0	25.4	16.8	11.2	10.6	8.8	8.5	8.4
14	- 26.2	- 13.6	- 10.0	32.8	21.0	15.7	12.5	8.9	10.7	10.6
15	- 22.7	- 17.9	- 15.0	25.9	18.9	14.4	11.4	12.1	12.0	11.9
16	+ 17.7	- 6.0	- 1.0	20.4	15.1	11.5	9.0	9.2	9.1	9.0
City Total	- 4.4	- 7.0	- 4.3	28.3	17.7	14.0	12.6	10.6	10.2	10.0

*Expressed as percentage of total population

from most unusual social and economic upsets, can alter this trend. In forecasting the trends in migration for the coming decade, allowance has been made for rehousing projects now under way and for an improvement in employment opportunities due to defense industries.

Excess of Births over Deaths

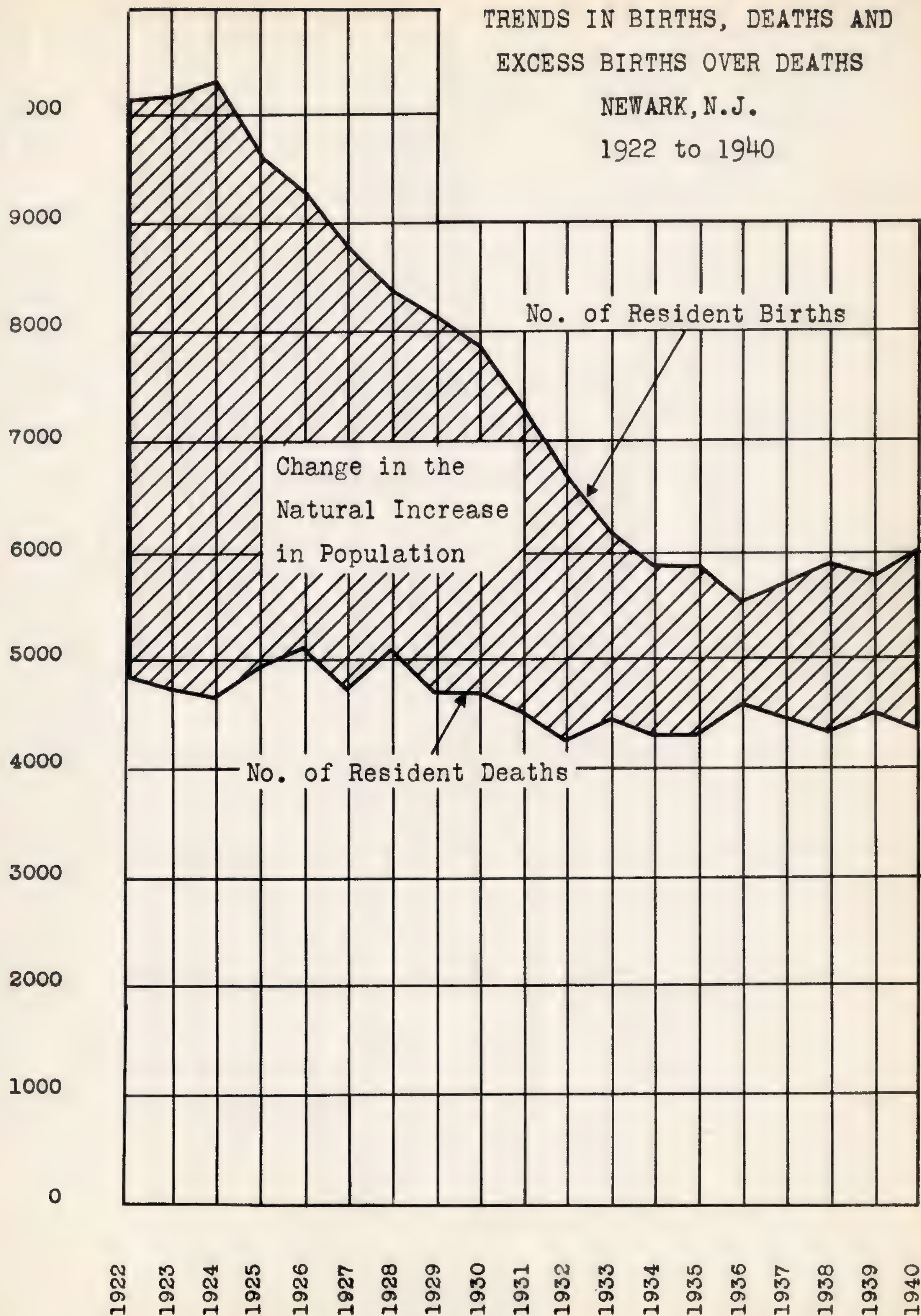
The potential natural increase in population is measured by the excess of births over deaths. Trends in excess births over deaths for the City is shown in Graph No. 2. Since 1934 there has been a tendency for the excess of births over deaths to become fairly stable.

The number of births less deaths for the City in the decade 1920 to 1930 was 46,141 compared with only 18,240 during the decade 1930 to 1940. The birth rate, including only residents of the City, decreased from 28 per thousand in 1920 to 14 per thousand in 1940. The full effect of this decrease will be felt after 1950 when the number of potential mothers will have decreased along with the birth rate.

Future Population of the City

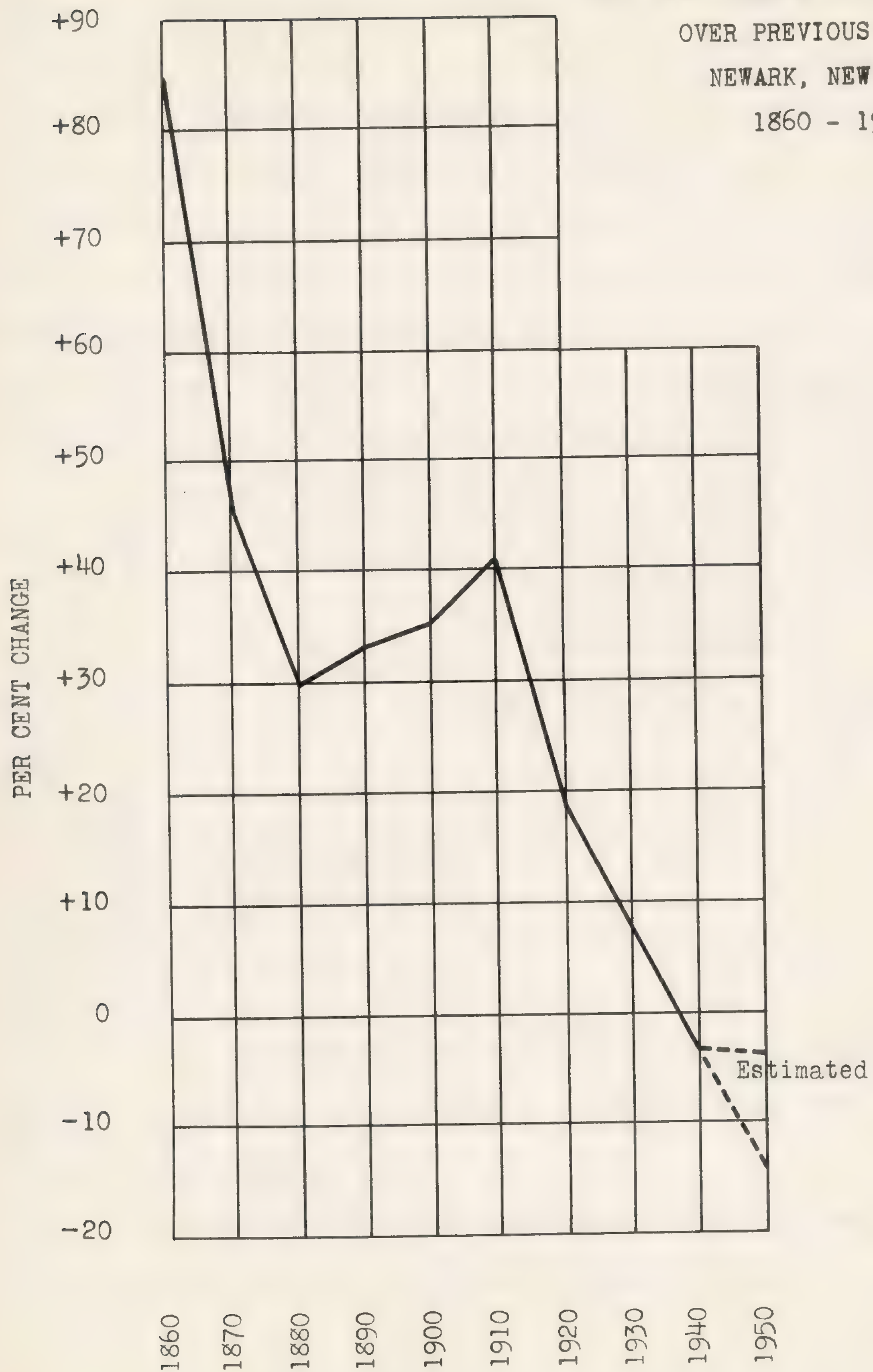
Graph No. 3 shows the per cent change in population for the City from 1860 to 1940. If the rate of decrease in population which has occurred during the past three decades were to continue for another decade, Newark would have a total population of only 380,000 in 1950.

TRENDS IN BIRTHS, DEATHS AND
EXCESS BIRTHS OVER DEATHS
NEWARK, N.J.
1922 to 1940



Graph No. 2

PER CENT CHANGE IN TOTAL POPULATION
OVER PREVIOUS CENSUSES
NEWARK, NEW JERSEY
1860 - 1950



Graph No. 3

However, there are several forces which appear to be counteracting the tendency for a continuance of the same rate of decrease. These are the leveling off of the ratio of births to deaths, rehousing projects, saturation of suburban communities, and increasing stability of employment conditions. The forecast from factors in Table 3 appears to be more reasonable than a forecast made solely from past rates of decrease. This Table shows the assumptions on which the population forecast has been made. Each ward has been considered separately in the light of particular trends and conditions.

The estimated population for each ward was estimated from migration, birth and death rates by the following formula:

$$P_2 = \frac{P_1 - M - 5R_{D1}P_1 + 5R_{B1}P_1}{1 + 5R_{D2} - 5R_{B2}}$$

where

P_2 = Population in 1950
 P_1 = " " 1940
 M = Total Migration
 R_{D1} = Death rate in 1940
 R_{D2} = " " 1950
 R_{B1} = Birth rate in 1940
 R_{B2} = " " 1950

This formula assumes that the average birth rate and death rate for the period will be equivalent to the average of the 1950 and 1940 rates.

By this method of forecasting, it is estimated that the total population in 1950 will be approximately 415,000

TABLE 3
PRELIMINARY ESTIMATE OF 1950 POPULATION BY WARDS
NEWARK, NEW JERSEY

Ward	Population 1940	Estimated Net Migration 1940-49	Resident Births 1940	Estimated Birth Rate 1950	Resident Deaths 1940	Estimated Death Rate 1950	Estimated Population 1950
1	26813	- 1341	402	14.0	204	7.8	25666
2	11307	- 565	142	11.3	194	17.0	10790
3	25863	- 1293	514	17.9	425	16.2	24804
4	5329	- 799	71	12.0	125	23.2	4513
5	15474	- 3095	239	13.9	157	10.0	12544
6	19272	- 2313	296	13.9	231	11.9	17113
7	14092	- 1409	225	14.4	160	11.3	12809
8	39301	+ 393	601	13.8	441	11.1	39955
9	62714	+ 1881	766	11.0	512	8.1	64924
10	18189	- 3638	300	14.9	141	7.7	14813
11	28913	+ 578	402	12.3	283	9.7	29700
12	19454	- 2334	269	12.4	158	8.0	17295
13	57663	+ 577	643	10.1	493	8.4	58493
14	29866	- 2987	470	14.1	321	10.6	27149
15	11824	- 1774	170	13.0	142	11.9	10134
16	44686	- 447	514	10.0	408	9.0	44546
City Total	429760	- 18566	6024	12.6	4395	10.0	415248

Composition of Population

The following table shows the changes which have occurred since 1900 in the composition of Newark's population.

<u>Item</u>	<u>Year of Census</u>			
	<u>1900</u>	<u>1910</u>	<u>1920</u>	<u>1930</u>
Per cent Male	49.1	50.0	50.5	50.5
Per cent Female	50.9	50.0	49.5	49.5
Per cent Negro	2.7	2.7	4.1	8.8
Per cent Foreign- Born White	28.9	31.8	28.2	26.1

Table 4 compares the changes in Negro population in Newark with those in other large cities.

TABLE 4
NEGRO POPULATION IN EIGHTEEN CITIES AND THE UNITED STATES

Cities	1930 Population		1920 Population		1910 Population		Per Cent of Increase 1920-1930	* Page Reference
	Number	% of Total Population	Number	% of Total Population	Number	% of Total Population		
Baltimore	142,106	17.7%	108,322	14.8%	84,749	15.2%	31.2%	67
Buffalo	13,563	2.4	4,511	.9	1,773	.4	200.7	66
Chicago	233,903	6.9	109,458	4.1	44,103	2.0	113.7	67
Cincinnati	47,818	10.6	30,079	7.5	19,639	5.4	59.0	67
Cleveland	71,899	8.0	34,451	4.3	8,448	1.5	108.7	67
Detroit	120,066	7.7	40,833	4.1	5,741	1.2	194.0	68
Hartford	6,510	4.0	4,199	3.0	1,745	1.8	55.0	69
Houston	63,337	21.7	33,960	24.6	23,929	30.4	86.5	69
Kansas City	38,674	9.6	30,719	9.5	23,566	9.5	25.6	69
Memphis	96,550	38.1	61,181	37.7	52,441	40.0	57.8	69
Milwaukee	7,501	1.3	2,229	.5	980	.3	236.0	70
Minneapolis	4,176	.9	3,927	1.0	2,592	.9	6.3	70
New York	327,706	4.7	152,467	2.7	91,709	1.9	114.9	70
NEWARK	38,880	8.8	16,977	4.1	9,475	2.7	129.0	70
Philadelphia	219,599	11.3	134,229	7.4	84,459	5.5	63.6	71
Pittsburgh	54,983	8.2	37,725	6.4	25,623	4.8	45.7	71
St. Louis	93,580	11.4	69,854	9.0	43,960	6.4	33.9	70
Washington	132,068	27.1	109,966	25.1	94,446	28.5	20.0	73
UNITED STATES	11,891,143	9.7	10,463,131	9.9	9,827,763	10.7	13.6	46

*Reference to pages of the Fifteenth Census of the United States, 1930, Vol. II.

SCHOOL POPULATION CHANGES

Changes in school population result from changes in the number of resident births and from migration of families with children. The number of resident births is determined from the statistics of the Department of Health. Migration is estimated from the ratio of potential child population, based on births and survivorship rates, to the actual child population.

Table No. 5 shows the number of resident births in Newark from 1920 to 1940 together with estimates for 1941 to 1945. In addition, this table indicates the number of survivors at ages 5 to 9. The survivorship rates are based on the actual number of children dying at each age. They are slightly inaccurate since no allowance has been made for migration. However, the error is so small as to be almost insignificant in the application to be made of the figures.

In Table No. 6 the potential population of children 5 to 9 years of age is shown. This population is equivalent to the sum of the survivors in Table No. 4 for each age group, each year. If there were no migration, Newark would have a 5 to 9-year-old population equivalent to this potential population.

The ratio of total school enrollment to total population in the 5 to 9-year-old group for 1920 was 86.6 and for 1930 it was 85.5. Based on these ratios it has been assumed that 85.6 per cent of the total population 5 to 9 years of age is enrolled in public school. Table No. 6 shows the total school

TABLE 5
BIRTH AND CHILD SURVIVORSHIP TABLE 1920 TO 1940
AND ESTIMATES 1941 TO 1945
NEWARK, NEW JERSEY

<u>Year of Birth</u>	<u>Resident Births</u>	<u>Survivors at Ages 5 to 9</u>				
		<u>5 Years</u>	<u>6 Years</u>	<u>7 Years</u>	<u>8 Years</u>	<u>9 Years</u>
1920	10768	9502	9484	9466	9438	9410
1921	10769	9595	9577	9559	9537	9516
1922	10110	8981	8960	8935	8916	8897
1923	10142	9098	9073	9055	9036	9019
1924	10307	9317	9295	9279	9260	9249
1925	9574	8455	8433	8419	8401	8392
1926	9246	8232	8213	8202	8187	8176
1927	8796	7885	7867	7858	7844	7835
1928	8371	7543	7528	7516	7503	7493
1929	8143	7393	7379	7370	7358	7347
1930	7847	7175	7161	7152	7140	7132
1931	7369	6784	6772	6761	6749	6743
1932	6662	6163	6151	6143	6133	6128
1933	6194	5739	5727	5720	5711	5709
1934	5827	5377	5367	5362	5354	5352
1935	5826	5319	5309	5307	5301	5297
1936	5499	5092*	5084*	5082*	5077*	5072*
1937	5703	5354*	5348*	5344*	5339*	5334*
1938	5860	5497*	5492*	5487*	5482*	5477*
1939	5770	5411*	5406*	5401*	5396*	5391*
1940	6024	5669*	5664*	5659*	5654*	5649*
1941	6000*	5650*	5645*	5640*	5635*	5630*
1942	5700*	5360*	5355*	5350*	5345*	5340*
1943	5600*	5270*	5265*	5260*	5255*	5250*
1944	5800*	5460*	5455*	5450*	5445*	5440*
1945	5800*	5460*	5455*	5450*	5445*	5440*

*Estimated

TABLE 6
CHANGES IN ENROLLMENT AND POPULATION OF CHILDREN 5-9 YEARS OF AGE 1920 TO 1940
AND ESTIMATES 1941 TO 1950
PUBLIC SCHOOLS, NEWARK, NEW JERSEY

School Year	Total Public School Enrollment 5-9 yrs. of age	Estimated Total Population* 5-9 yrs. of age	Total Population by Census 5-9 yrs. of age	Per Cent Difference is of Estimate	Potential Population by Births 5-9 yrs. of age	Ratio of Potential Population to	
						Est. Total Population	P.S. Enrollment
1919-20	36849	43047	U.S. 42531	1.2%			
1920-21	37425	43720					
1921-22	36399	42522					
1922-23	36110	42184					
1923-24	36266	42366					
1924-25	35185	41103					
1925-26	34657	40487					
1926-27	35250	41179					
1927-28	34685	40519					
1928-29	34977	40861					
1929-30	35151	41064	U.S. 41120	.1%			
1930-31	34180	39930					
1931-32	32546	38021					
1932-33	31993	37375					
1933-34	30727	35896					
1934-35	29709	34707					
1935-36	28500	33294					
1936-37	27956	32659					
1937-38	27089	31646	School 29524	2.6%			
1938-39	25959	30326					
1939-40	24647	28793					
1940-41	23426	27367					
1941-42	22358	26119					
1942-43	21983	25681					
1943-44	21796	25462					
1944-45	21563	25190					
1945-46	21578	25207					
1946-47	22025	25730					
1947-48	21754	25413					
1948-49	21302	24885					
1949-50	21066	24609					

*Population is estimated by dividing total school enrollment by 85.6 per cent

enrollments by years since 1920 together with the estimated total population derived by this ratio. It can be seen that the error of estimate is low except in the case of the school census. However, this latter census is not a house-to-house canvas and, therefore, may have a large error in itself.

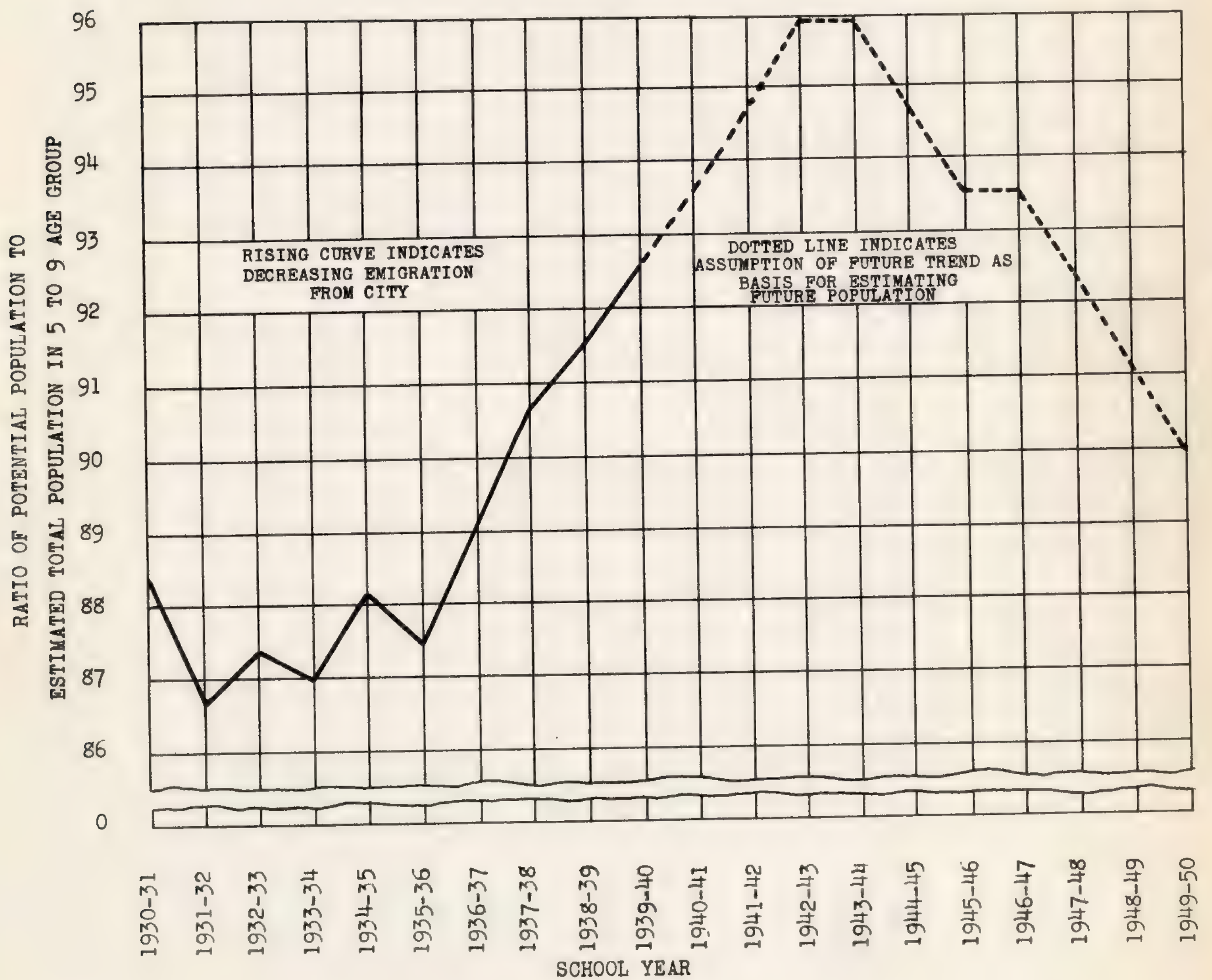
The ratio of potential population to estimated actual population, which is used as a measure of migration, is shown in Table No. 6 and the trend has been plotted on Graph No. 4 together with assumptions on which future estimates have been based.

A second method of estimating future enrollments was used, which excludes the factor of migration. This method is based on the assumption that the number of 6-year-old children now in school would be equivalent to the number of 7-year-old children in school next year less those who die. Following is a comparison of the results of the two methods.

Estimates of Future Enrollments
Of Children Ages 5 to 9
Public Schools, Newark, N.J.

<u>Year</u>	<u>1st Method Including Migration</u>	<u>2nd Method Excluding Migration</u>
1940-41	23,426	23,563
1941-42	22,358	22,413
1942-43	21,983	21,724
1943-44	21,796	21,533
1944-45	21,563	21,573
1945-46	21,578	21,842
1946-47	22,025	22,310
1947-48	21,754	22,344
1948-49	21,302	22,165
1949-50	21,066	22,187

MIGRATORY TENDENCIES AS INDICATED BY RATIO OF POTENTIAL POPULATION
TO ESTIMATED TRUE POPULATION FOR THE GROUP 5 TO 9 YEARS OF AGE
1930 TO 1940 - WITH ASSUMPTIONS FOR 1941 TO 1950
NEWARK, NEW JERSEY



Graph No. 4

Since only small differences between the two results occur prior to 1946, the second method has been used to establish detailed estimates for all ages and grades.

These estimates are given in Tables Nos. 7, 8, and 9. The numbers enrolled at 5 and 6 years of age were taken as 73 per cent and 83 per cent respectively of the potential population. The enrollment figure of those 6 years of age was then held constant up to and including 12 years of age. The enrollment at 13 years of age was taken as 103 per cent of the enrollment at 12 years of age and the enrollment at 14 years of age was taken as 105 per cent of that at 12 years of age. This adjustment is to correct for parochial elementary pupils entering public high schools. The numbers enrolled at 15, 16, 17 and 18 years of age were taken as 97, 70, 47, and 19 per cent of the enrollment at 14 years of age. These ratios represent the proportion of pupils who remain in school at these age levels and are based on 1939-40 percentages.

Table No. 8 shows the relationships which have existed in the past among enrollments by ages and enrollments by grades. The grade estimates shown in Table No. 9 were arrived at by applying the ratios of Table No. 8 to the enrollments by ages in Table No. 7.

The trends in enrollment have been plotted in Graph No. 5. It should be emphasized, however, that any change in the rate of drop-outs will affect the trend in the enrollment at the senior high-school level, Grades 10, 11, and 12. If all children 15, 16, and 17 years of age were to remain in school, the total

TABLE 7
TOTAL ENROLLMENTS BY AGE 1930 TO 1940
AND ESTIMATES 1941 TO 1950
PUBLIC SCHOOLS, NEWARK, NEW JERSEY

School Year	Age 5 Years	Age 6-7-8 Years	Age 9-10-11 Years	Age 12-13 Years	Age 14 Years	Age 15-16-17 Years
1929-30	5,510	22,096	21,940	14,523	8,244	10,894
1930-31	5,471	21,233	22,179	14,298	8,024	11,560
1931-32	5,206	20,483	21,487	14,259	7,625	12,657
1932-33	5,244	19,846	20,878	14,262	7,580	13,825
1933-34	5,029	18,835	20,625	14,489	7,229	14,598
1934-35	5,016	18,233	20,067	14,132	7,431	15,055
1935-36	4,564	17,798	19,373	13,856	7,689	15,370
1936-37	4,645	17,198	18,974	13,826	7,179	14,888
1937-38	4,417	16,818	18,220	13,624	7,480	14,672
1938-39	4,038	16,101	17,875	12,967	7,426	15,472
1939-40	3,904	15,217	17,288	12,510	6,876	15,811
E S T I M A T E S						
1940-41	3,883	14,290	16,770	12,224	6,710	15,384
1941-42	3,717	13,596	16,020	11,948	6,426	14,812
1942-43	3,908	13,081	15,225	11,556	6,216	14,162
1943-44	4,013	13,065	14,290	11,086	6,143	13,682
1944-45	3,950	13,217	13,596	10,652	5,807	13,330
1945-46	4,138	13,484	13,081	9,988	5,660	12,855
1946-47	4,125	13,746	13,065	9,332	5,355	12,442
1947-48	3,913	13,873	13,217	8,995	4,972	11,866
1948-49	3,847	13,831	13,484	8,758	4,678	11,232
1949-50	3,986	13,500	13,746	8,786	4,626	10,535

TABLE 8

RATIO OF ENROLLMENTS BY AGES TO ENROLLMENTS BY GRADES 1930 TO 1940
AND ESTIMATES 1941 TO 1950
PUBLIC SCHOOLS, NEWARK, NEW JERSEY

School Year	Ratio to 5 Year Olds Kindergarten	Ratio to 6-7-8 Year Olds Grades 1-2-3	Ratio to 9-10-11 Year Olds Grades 4-5-6	Ratio to 12-13 Year Olds Grades 7-8	Ratio to 14 Year Olds Grade 9	Ratio to 15-16-17 Year Olds Grades 10-11-12
1929-30	54.7	82.5	95.7	128.1	211.1	185.6
1930-31	58.4	81.2	97.8	118.9	183.9	172.5
1931-32	60.0	83.3	96.1	114.6	145.5	164.2
1932-33	62.3	85.3	94.7	110.7	145.9	144.2
1933-34	61.7	87.9	92.2	109.7	123.3	142.8
1934-35	62.9	89.3	90.9	106.8	122.8	138.7
1935-36	61.3	91.8	90.1	103.3	123.1	137.1
1936-37	64.3	90.8	92.9	100.3	128.8	129.1
1937-38	62.6	91.3	95.0	99.4	123.8	131.8
1938-39	61.0	90.6	97.8	96.7	114.8	131.3
1939-40	59.8	90.5	99.0	98.9	109.1	125.3

Assumption

as

Basis

for

Estimates

1941-50

60.0

91.0

100.0

98.0

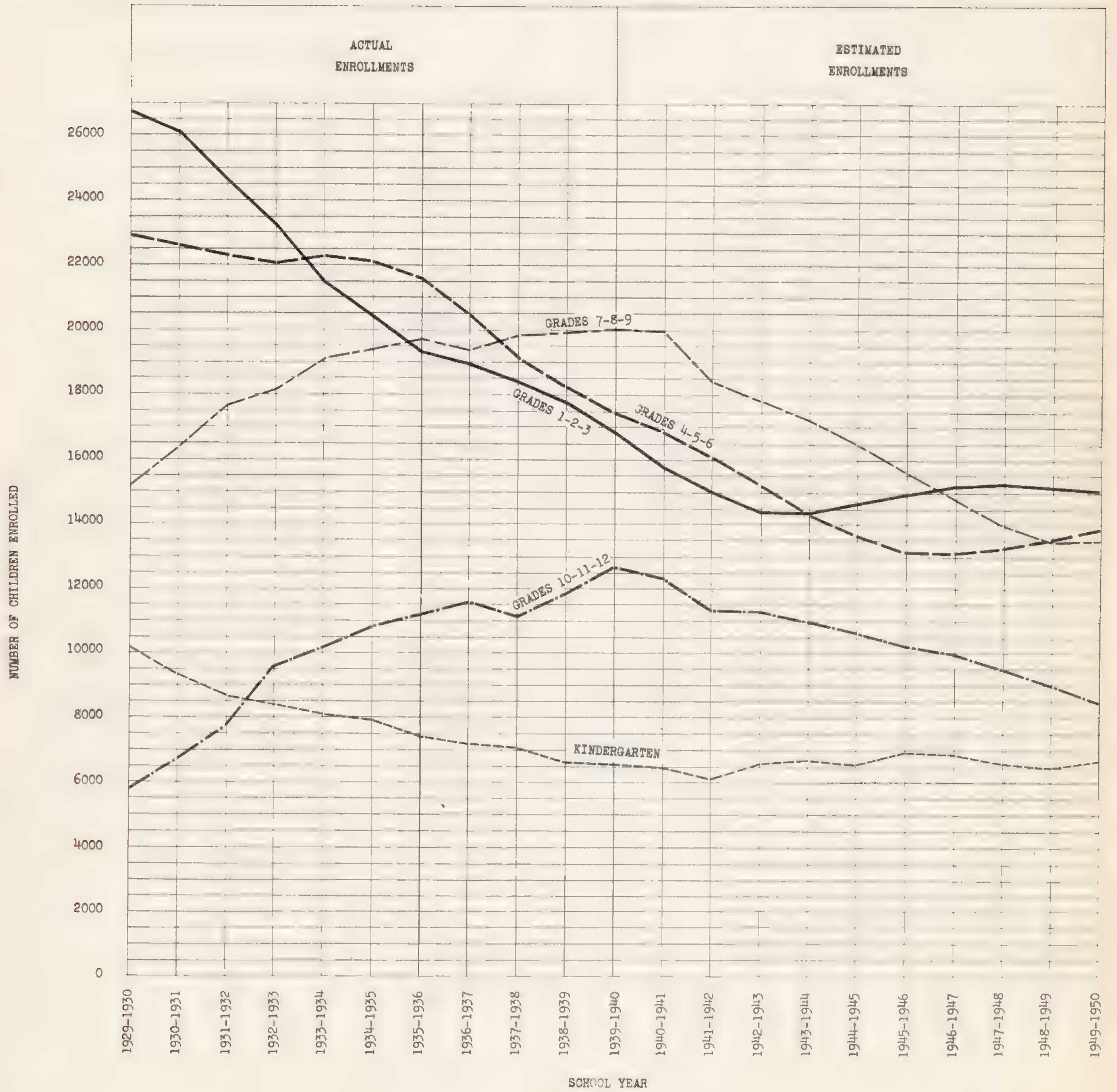
104.0

125.0

TABLE 9
TOTAL ENROLLMENTS BY GRADE 1930 TO 1940
AND ESTIMATES 1941 TO 1950
PUBLIC SCHOOLS, NEWARK, NEW JERSEY

School Year	Kindergarten	Grades 1-2-3	Grades 4-5-6	Grades 7-8	Grade 9	Grades 10-11-12
1929-30	10,065	26,767	22,919	11,338	3,905	5,871
1930-31	9,372	26,162	22,672	12,029	4,364	6,701
1931-32	8,674	24,593	22,367	12,446	5,239	7,707
1932-33	8,413	23,277	22,044	12,879	5,194	9,586
1933-34	8,153	21,434	22,368	13,209	5,865	10,225
1934-35	7,974	20,425	22,077	13,231	6,051	10,857
1935-36	7,446	19,388	21,512	13,408	6,247	11,213
1936-37	7,227	18,950	20,434	13,787	5,574	11,529
1937-38	7,052	18,428	19,171	13,711	6,043	11,136
1938-39	6,624	17,766	18,232	13,408	6,469	11,782
1939-40	6,528	16,809	17,469	12,647	6,305	12,623
E S T I M A T E S						
1940-41	6,472	15,703	16,770	12,473	6,452	12,307
1941-42	6,195	14,941	16,020	12,192	6,179	11,346
1942-43	6,513	14,375	15,225	11,792	5,977	11,330
1943-44	6,688	14,357	14,290	11,312	5,907	10,946
1944-45	6,583	14,524	13,596	10,869	5,584	10,664
1945-46	6,897	14,818	13,081	10,192	5,442	10,284
1946-47	6,875	15,105	13,065	9,522	5,149	9,954
1947-48	6,522	15,245	13,217	9,179	4,781	9,493
1948-49	6,458	15,199	13,484	8,937	4,498	8,986
1949-50	6,643	14,983	13,746	8,965	4,448	8,428

TOTAL ANNUAL GRADE ENROLLMENTS FOR 1930 TO 1940
AND ESTIMATES FOR 1941 TO 1950
PUBLIC SCHOOLS - NEWARK, NEW JERSEY



Graph No. 5

enrollment in senior high schools would be approximately 40 per cent greater than the estimates given. This would, of course, depend on changes in the curriculum and facilities and, or, the law. There is, on the other hand, a possibility that drop-outs may increase, if the demand for defense labor attracts more youths.

VARIATIONS IN HOME ENVIRONMENTS

Variations in home conditions and general physical environment of the neighborhood are shown on Map No. 2. The measure of environment used in this analysis is a composite index of the following factors weighted as indicated:

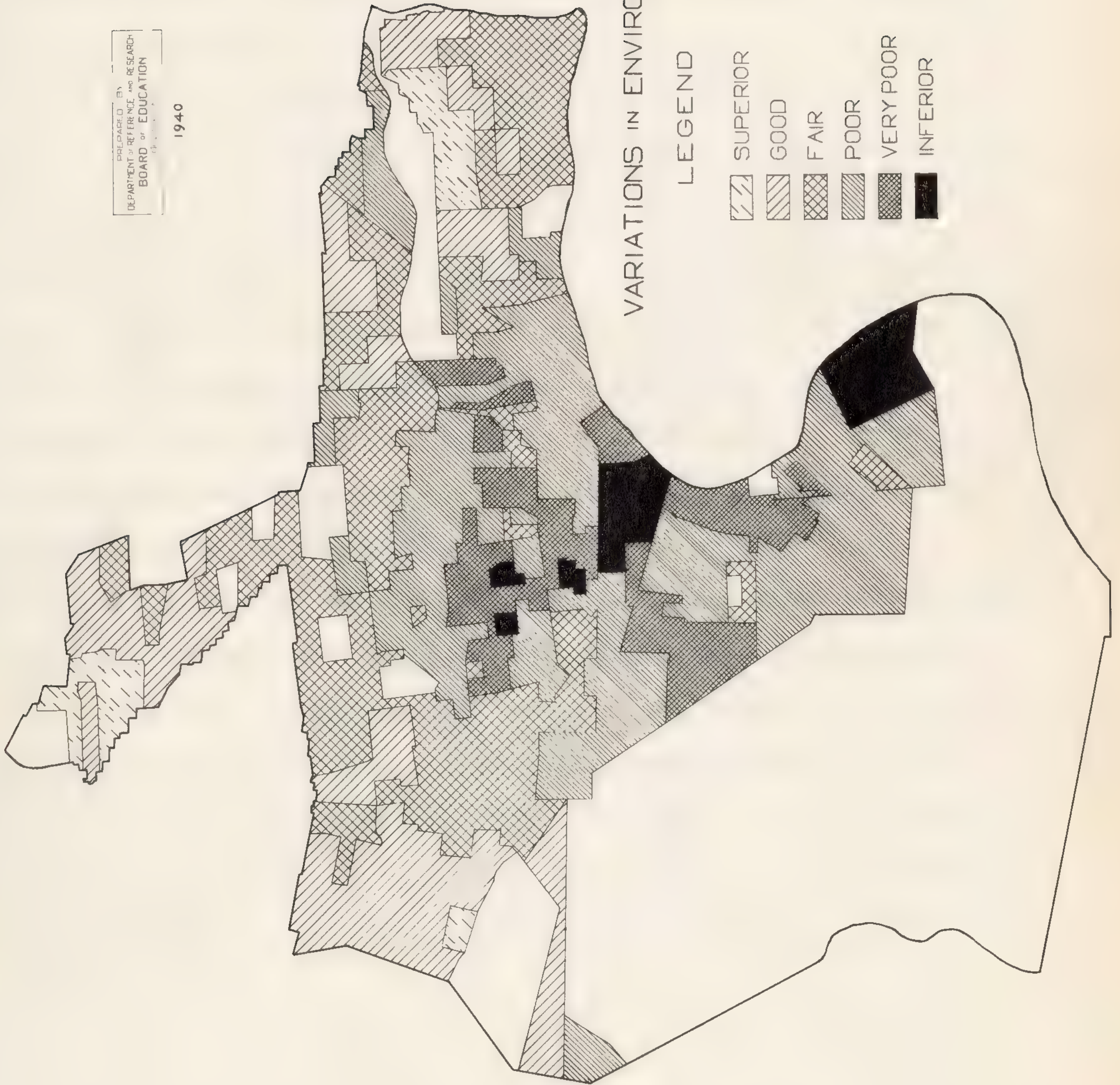
<u>Items</u>	<u>Weight</u>
1. Homes in bad condition	3
2. Homes without hot water	4
3. Homes without bathtub or shower	3
4. Overcrowding (more than 1 person per room)	3
5. Homes without private water closet	5
6. Homes without electric light	2
7. Homes without gas for cooking	1
8. Homes without mechanical refrigeration	1
9. Population density	1
10. Incidence of tuberculosis	4
11. Median rent paid for home (reversed)	2
12. Homes occupied by owners (reversed)	1
13. Single family houses (reversed)	2
14. Houses constructed since 1924 (reversed)	1
15. Number of automobiles per family (reversed)	1

The weightings given the factor were determined by group judgment. However, because of the correlations existing among factors, the weightings may be changed considerably without altering the final result.

The final composite indices of environment ranged from a score of 10 for a superior condition to a score of 180 for an inferior condition. The district which was in the middle of the group scored 61. One half of the districts scored between 47 and 75. This distribution indicates that very few districts within the City can be considered superior while a very large number of districts fall at the lower extremities of the environmental scale.

DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION

1940



VARIATIONS IN ENVIRONMENT

LEGEND

-  SUPERIOR
-  GOOD
-  FAIR
-  POOR
-  VERY POOR
-  INFERIOR

Map No. 2

In a study* of cities between 30,000 and 500,000 population, Newark was found to rank approximately in the middle of the group in regard to overall goodness of community life. It ranked considerably above the median in income, roughly approximating an average annual income of \$675 per resident of all ages in 1930, probably nearer \$800 in 1941.

Since Thorndike's goodness index contained many of the same items as the environmental index used in this analysis, it is reasonable to assume that the median district in Newark is comparable to median urban conditions throughout the country for cities the size of Newark or smaller. It is interesting to note that these median conditions are exemplified by such areas as those near the Peshine Avenue School, those between West Side Park and Woodland Cemetery, and those on the eastern side of East Side Park. All those areas indicated as "Fair" on Map No. 2 are either median or slightly better than the median living environment of people in cities of the size studied.

However, it is equally important to recognize that, although Newark's median environment compares favorably with other cities, there are still fifty per cent of the districts in the City which must be considered poor, very poor, or inferior. The relation between these classifications and scores is shown

*Edward L. Thorndike, "American Cities and States: Variation and Correlation in Institutions, Activities, and The Personal Qualities of the Residents," Annals of the New York Academy of Sciences, Volume XXXIX, Art. 4, Page 243, Dec. 22, 1939

below, together with the number of people living in each district
in 1930:

<u>Class</u>	<u>Score</u>	<u>Population</u> <u>1930</u>
Superior	10 - 27	8,680
Good	28 - 44	64,924
Fair	45 - 62	149,865
Poor	63 - 89	151,805
Very Poor	90 - 125	56,926
Inferior	126 - 180	8,016

Comparison of Superior and Inferior Environments

A comparison of the home conditions in a typical superior-environment with those in a typical inferior-environment will be helpful in visualizing the character of the scoring system. The following two districts have been selected since both have approximately the same population. The figures given indicate the number of dwelling units falling in each classification. Thus, in the inferior environment 197 out of 216 dwellings had neither bathtub nor shower while all units in the superior environment had these facilities.

Comparison between Inferior and Superior Districts*

	<u>Inferior</u>	<u>Superior</u>
Environmental Score	141	10
Population	814	824
Number of Dwelling Units	216	196
one-family	34	194
two-family	48	2
three-family	6	0
four-family	4	0
apartments	107	0
other types	17	0
occupied by owner	44	174
occupied by White	182	196
occupied by Negro	34	0
vacant	38	6
need major repairs	77	1
unfit for use	138	2
cold water only	183	0
no tub or shower	197	0
crowded	73	0
overcrowded	8	0
no indoor water closet	101	0
electric lighting	130	196
gas lighting	25	0
other or no lighting	61	0
no mechanical refrigeration	215	45
median rent	\$14.25	\$130.76
Number of automobiles	29	283

*Data secured from Real Property Inventory of 1934

Relation of Environment to Change in Population

The relation between population change and environment is important in any discussion of a future educational program. The 1940 U. S. Census was available only by wards at the time of preparation of this report. Hence, in obtaining this relationship it was necessary to use the average environmental score for each ward. The following table summarizes the results:

Relation Between Environmental Score
And Per Cent Change in Population
1920-1940
By Wards - City of Newark

Ward	Environmental Score	Per Cent Change in Population 1920-1930	Per Cent Change in Population 1930-1940
13	46	+47.9	+ 1.4
8	47	+25.8	+ 0.5
11	49	+31.7	+ 4.8
9	50	+73.6	+ 3.0
16	52	+27.7	- 2.9
6	63	+ 4.4	- 9.2
1	78	-12.6	+ 1.5
15	78	-14.0	-14.0
14	80	-11.1	- 7.6
7	84	-17.2	- 0.7
12	85	-14.6	-12.1
10	86	-10.7	- 8.1
2	89	-30.6	- 4.9
5	93	-14.1	-13.7
3	97	-24.7	- 3.0
4	117	-45.3	-23.5

The table indicates that there was a very definite tendency during the 1920-1929 decade for people to move out of those wards having poor home conditions and to move into wards having home conditions which were on the average better than the median for the City. During the decade 1930-1939 this same tendency existed only to a smaller degree. A graphic portrayal of this movement will be seen in Map No 1,

The Maps Nos. 3, 4, 5, 6, 7, 8 show the location of new homes, home demolitions, new factories, factory demolitions, and family relocations throughout the City from 1935 to 1939 inclusive.

Births and Environment

Map No. 9 indicates the distribution of resident births in the City for the years 1938 and 1939. There is evident a concentration of births in the southern central section, roughly classified as Wards Nos. 3 and 14. If the birth map is compared with the map of environment it is clear that most of the births are occurring in districts falling in the poor, very poor, and inferior classifications. This condition is expressed in the following table:

<u>Environmental Condition</u>	<u>No. of Births 1939</u>	<u>Approximate Birth Rate Per 1000 Population</u>	<u>Approximate Birth Rate Per 1000 Population 25 to 44 Years of Age</u>
Superior	72	8.3	24.4
Good	719	11.7	31.1
Fair	1,696	11.3	33.7
Poor	2,177	14.3	45.8
Very Poor	834	14.7	45.2
Inferior	116	14.5	39.6

Fifty-six per cent of the births in the City are in homes located in poor, very poor, or inferior environments. Only 14 per cent of the births are to be found in the superior or good environments.

DEPARTMENT OF RESEARCH
IN EDUCATION

ONE DOT REPRESENTS ONE PERMIT

HOME BUILDING PERMITS
NEWARK, N.J.
1935-1939

Map No. 3

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



RESIDENTIAL DEMOLITIONS
NEWARK, N. J.
1935-1939
ONE DOT REPRESENTS ONE DEMOLITION

Map No. 4

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



FAMILIES HOUSED BY NEW BUILDINGS
NEWARK, N.J.
1935-1939
ONE DOT REPRESENTS TEN FAMILIES

Map No. 5

DEPARTMENT OF PUBLIC AFFAIRS
BOARD OF EDUCATION



FAMILIES MOVED DUE TO HOME
DEMOLITIONS
NEWARK, N.J.
1935-1939
ONE DOT REPRESENTS TEN FAMILIES

Map No. 6



FACTORY BUILDING PERMITS
 NEWARK, N. J.
 1935 - 1939
 ONE DOT REPRESENTS ONE PERMIT

Map No. 7

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



Map No. 8

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.

BIRTHS
NEWARK, N. J.
1938-1939
ONE DOT REPRESENTS TEN BIRTHS

NEWARK, N. J.
1938-1939
ONE DOT REPRESENTS TEN BIRTHS

53

Distribution of Age Groups

Although only 49.6 per cent of the total population live in below-median environment, 54 per cent of the children under 5 years of age and 56 per cent of those between 5 and 14 years of age are to be found living in poor, very poor, or inferior areas.

Table No. 10 indicates the distribution of age groups according to environment. It is important to note the ratios of children to young adults. The ratios of children 5 to 14 years of age to adults 25 to 44 years of age are as follows:

<u>Environment</u>	<u>No. of Children 5 to 14 Years of Age per 100 Adults 25 to 44 Years of Age</u>
Superior	40
Good	41
Fair	50
Poor	67
Very Poor	69
Inferior	40

TABLE 10
 PERCENTAGE DISTRIBUTION OF AGE GROUPS
 ACCORDING TO HOME ENVIRONMENT
 BASED ON 1930 CENSUS - NEWARK, NEW JERSEY

Environment	Percentage of Each Age Group					
	Under 5	5 - 14	15 - 24	25 - 44	45 - 64	65 and Over
Superior	1.4	1.4	1.6	2.0	2.6	4.0
Good	13.1	11.6	14.5	15.9	16.5	16.0
Fair	31.2	30.9	34.4	34.6	38.0	38.2
Poor	39.0	39.1	35.5	32.7	32.4	30.2
Very Poor	13.8	15.5	12.5	12.7	8.1	9.6
Inferior	1.5	1.4	1.5	2.0	2.3	2.0

CHARACTERISTICS OF POPULATION

Composition of Population

The following table indicates the percentage distribution of the population in each type of environment according to sex, race, and parentage. The percentages given are based on the 1930 United States Census, since the 1940 census figures for this type of information were not available at the time this report was prepared.

Type of Environment	Percentage Composition of Population in 1930						
	Female	Male	White	Negro	Native Parentage	Foreign or Mixed Parentage	Foreign-Born White
Superior	51.6	48.4	98.8	1.2	49.1	33.3	16.3
Good	51.0	49.0	99.5	0.5	33.8	42.1	24.0
Fair	50.1	49.9	97.6	2.4	29.3	41.1	26.6
Poor	47.3	52.7	88.4	11.6	19.6	41.8	27.3
Very Poor	46.6	53.4	76.9	24.6	12.7	36.0	25.4
Inferior	42.2	57.8	65.1	34.9	14.8	23.7	23.3

Intelligence

The importance of the combined effect of heredity and environment on intelligence has been fairly well established by research. Although little is known regarding the relative contribution of each, it is clear that much of the ability of children to do school work can be attributed to environmental influences.

Environment includes, of course, many factors not considered in this study, and the environmental measures used herein may or may not be correlated with these other factors. In considering the relationship of intelligence to environment, it is also necessary to bear in mind that the measure of environment used is also an indirect measure of social and economic group differences.

The National Resources Committee wrote as follows:*

"The meager evidence at hand indicates that a large part of the differences in average scholastic ability found between children in the same community classified with reference to the social-economic status of their parents may be due to genetic factors, the remainder being attributable to differences in environmental opportunity."

However, the median abilities to do school work and to perform on intelligence tests vary widely among social-economic groups. Such variations may be more a result of environmental opportunities than the variations occurring within any one group.

Map No. 10 indicates the variation, among school districts within the City, of the percentage of pupils having I.Q.'s below 90. The relation between these percentages and the average environment score of the districts is shown in Graph No. 6. The significant correlation between environmental scores and low I.Q.'s is being studied more thoroughly at the present time by the Department. Supplementary reports will be issued to cover these additional studies.

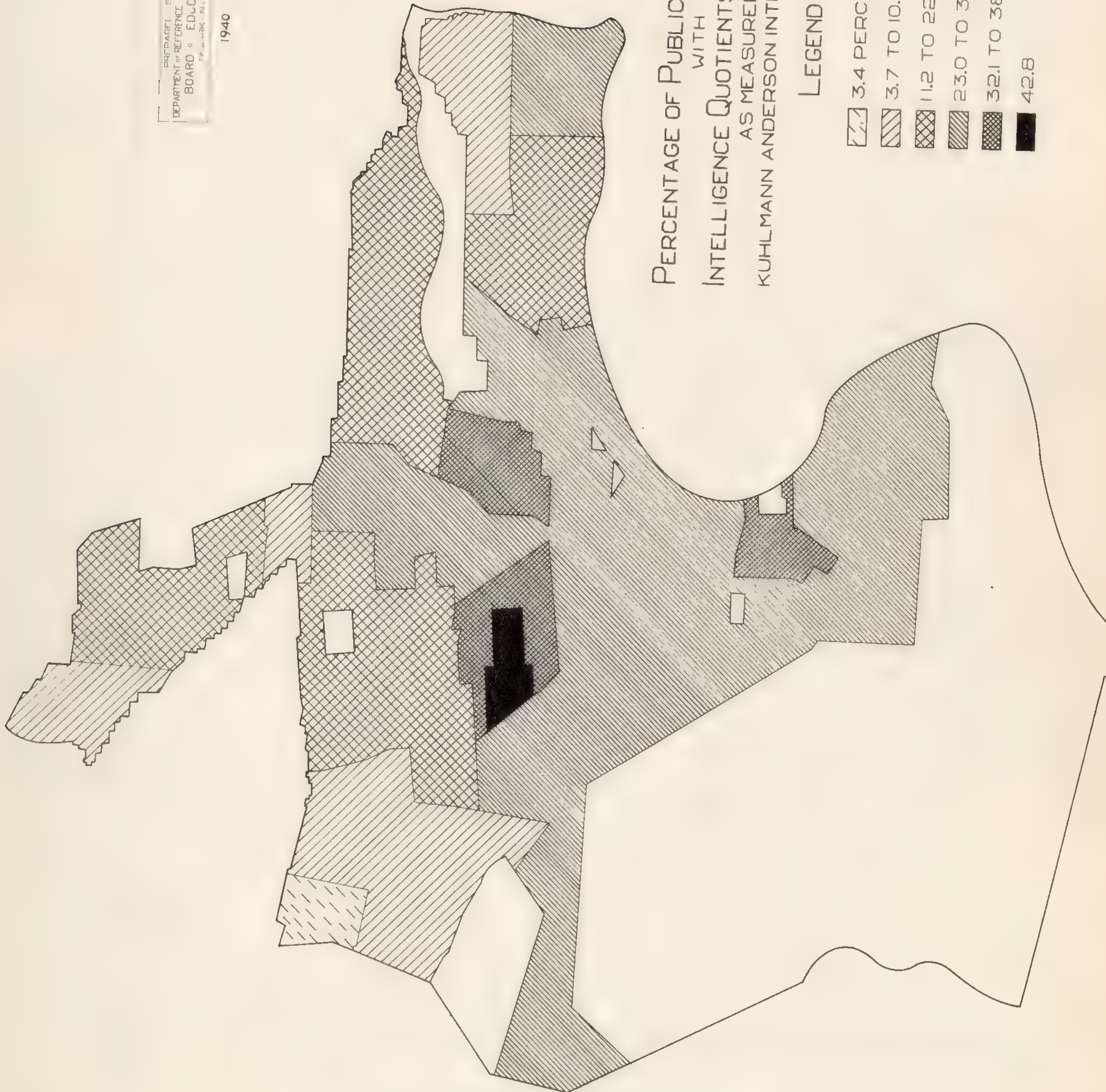
Binet Pupils

Map No. 11 shows the home location of Binet pupils. Although these pupils do not represent any one I.Q. group, they do include those who have special problems. Since the cost of schooling for Binet pupils is considerably higher than for regular pupils, it is of interest to recognize the districts in which their homes are located.

*National Resources Committee "The Problems of a Changing Population," Page 162, Washington, D. C. 1938

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
PRINCETON, N. J.

1940



PERCENTAGE OF PUBLIC SCHOOL PUPILS
WITH
INTELLIGENCE QUOTIENTS BELOW NINETY
AS MEASURED BY
KUHLMANN ANDERSON INTELLIGENCE TESTS

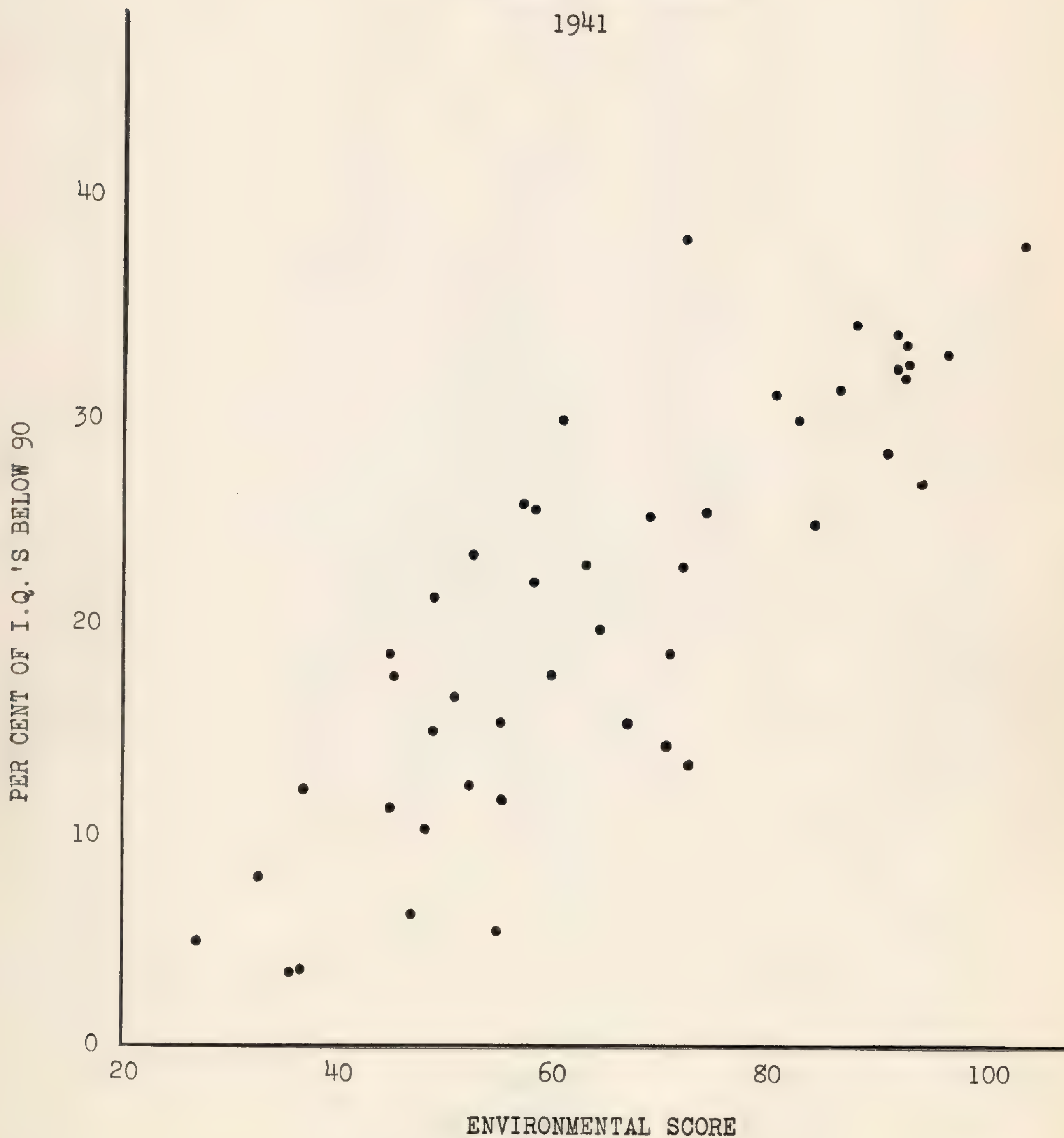
LEGEND

- 3.4 PERCENT
- 3.7 TO 10.1
- 11.2 TO 22.9
- 23.0 TO 32.0
- 32.1 TO 38.7
- 42.8

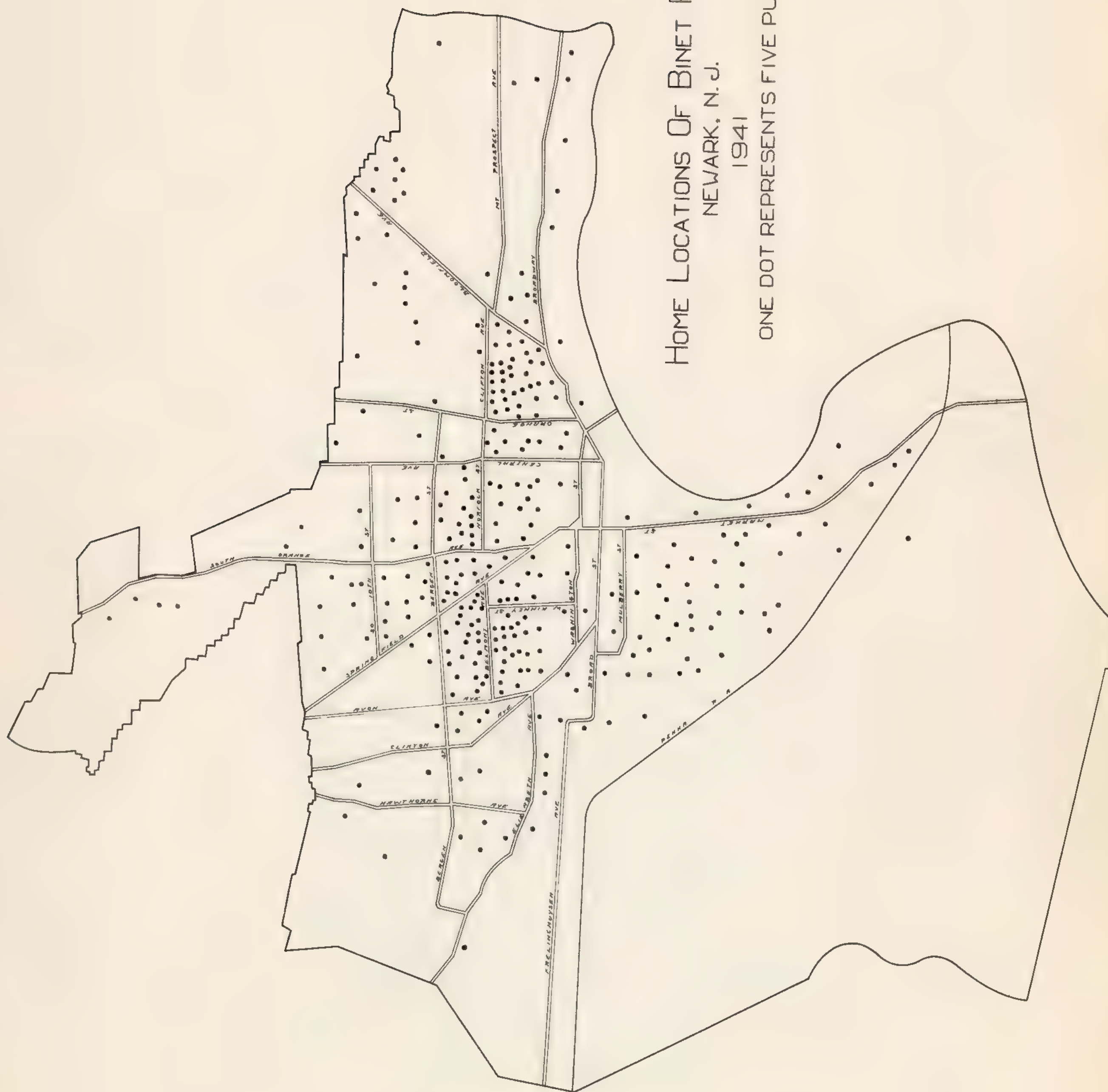
Map No. 10

CORRELATION BETWEEN ENVIRONMENTAL SCORE
AND PER CENT OF I.Q.'S BELOW 90
ELEMENTARY SCHOOL DISTRICTS
NEWARK, NEW JERSEY

1941



Graph No. 6



Map No. 11

Youths Not in School

Map No. 12 shows the home locations of youths 15 to 18 years of age who are not in school. The dot distribution indicates a relationship between environment or social-economic groups, and failure of youths to stay in school.

A tabulation of these youths by wards showed that 58 per cent of the youths not in school live in wards, the environmental scores of which are below the median score for the City. In these wards there were 7.9 youths per 1000 population out of school compared with 5.5 in the better wards.

Delinquency

In 1938 the Division of Statistics and Research of the New Jersey Institutions and Agencies published a report entitled "Delinquency Areas in Essex County Municipalities." On the frontispiece of this report the following quotation was given:

"Delinquency flourishes where religious influences are weak; where the communities and churches have no adequate social programs; where schools are inadequate in number, in curriculum and in qualified teaching staff; where poor social standards prevail; where home training and home ties are weak and where home life is disintegrating; where poverty and squalor are prevalent; where housing and living quarters are crowded, bare, mean and poor; where wholesome living and recreation is lacking; where disreputable dance halls, houses of ill fame, bootlegging joints, gambling dens and slot machines, tough pool rooms, all-night restaurants and hamburger stands and loafing places of the poorer kind exist; and among the so-called middle and richer classes where children are pampered, neglected, overindulged or spoiled."

(From "Our Children's Future," issued by the National Americanism Commission of the American Legion.)

PREPARED BY
DEPARTMENT OF RESEARCH
AND
RESEARCH
BOARD OF EDUCATION
NEWARK, N. J.

YOUTHS 15-18 YEARS OF AGE
IN SCHOOL
NEWARK, N. J.
1941
ONE DOT REPRESENTS 100

Map No. 12

The evidence in support of this statement is overwhelming. The distribution of juvenile delinquency cases within the City of Newark corresponds very closely with the distribution of youths 15 to 18 years of age not in school. Furthermore, of all Newark delinquents under custody between the ages of 7 and 24 years of age, 44 per cent are in the age group 16 to 20.

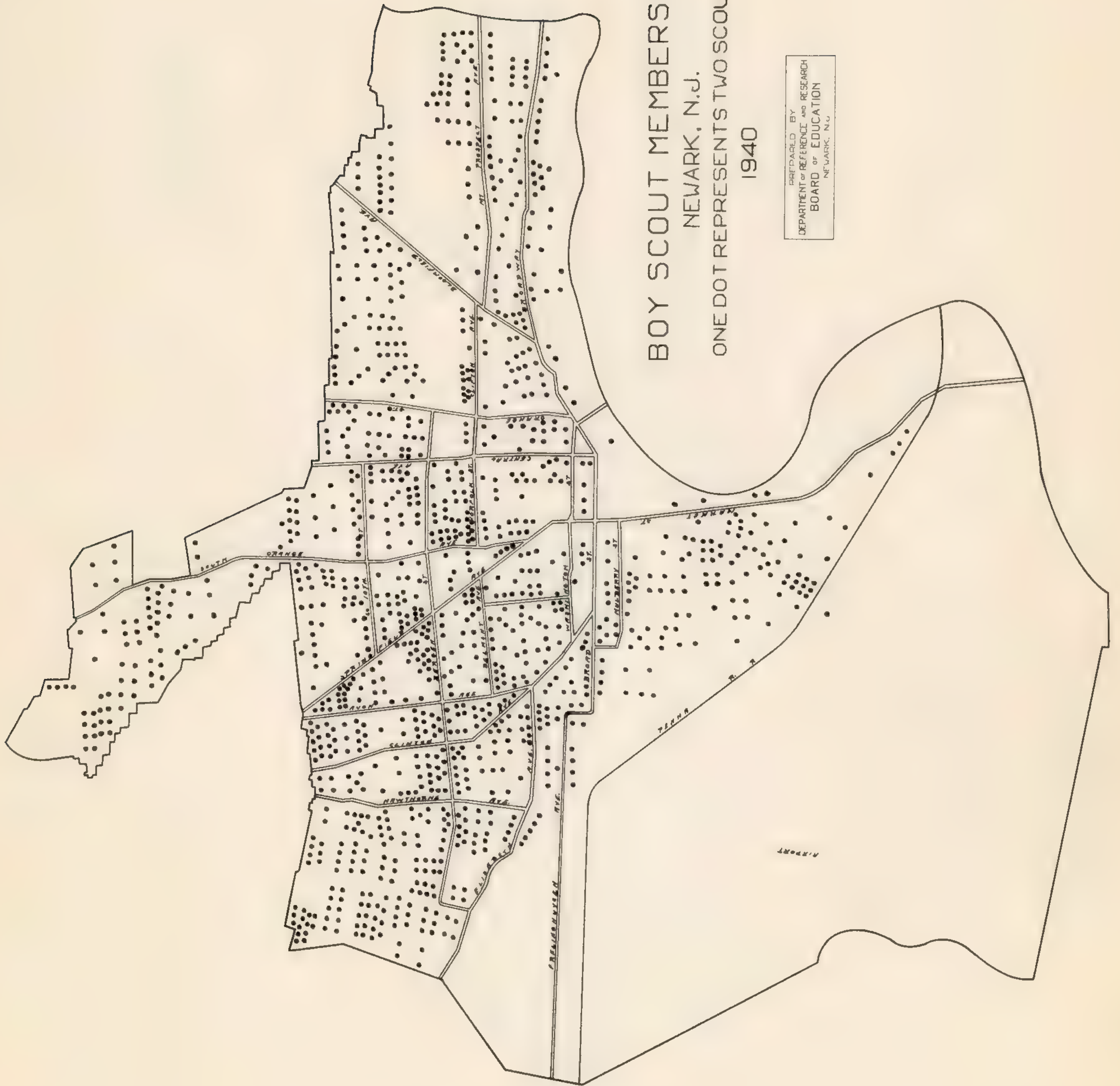
SOCIAL GROUPS

Maps Nos. 13, 14, 15, 16, 17, 18, 19, 20 have been prepared to show the locations of homes of members of the following social agencies:

Boy Scouts	Y.M. and Y.W.H.A.
Girl Scouts	Y.M.C.A. (Junior)
Negro Y.M.C.A.	Y.M.C.A. (Senior)
Negro Y.W.C.A.	Y.W.C.A.

A study of these maps leads to the general conclusion that these agencies, with few exceptions, do not serve the areas of greatest need as well as they serve the middle social-economic groups.

Table No. 11 emphasizes the fact that the social agencies under consideration primarily serve the people who live under the middle environmental conditions. The needs of superior, good, very poor, and inferior groups apparently are not being met.



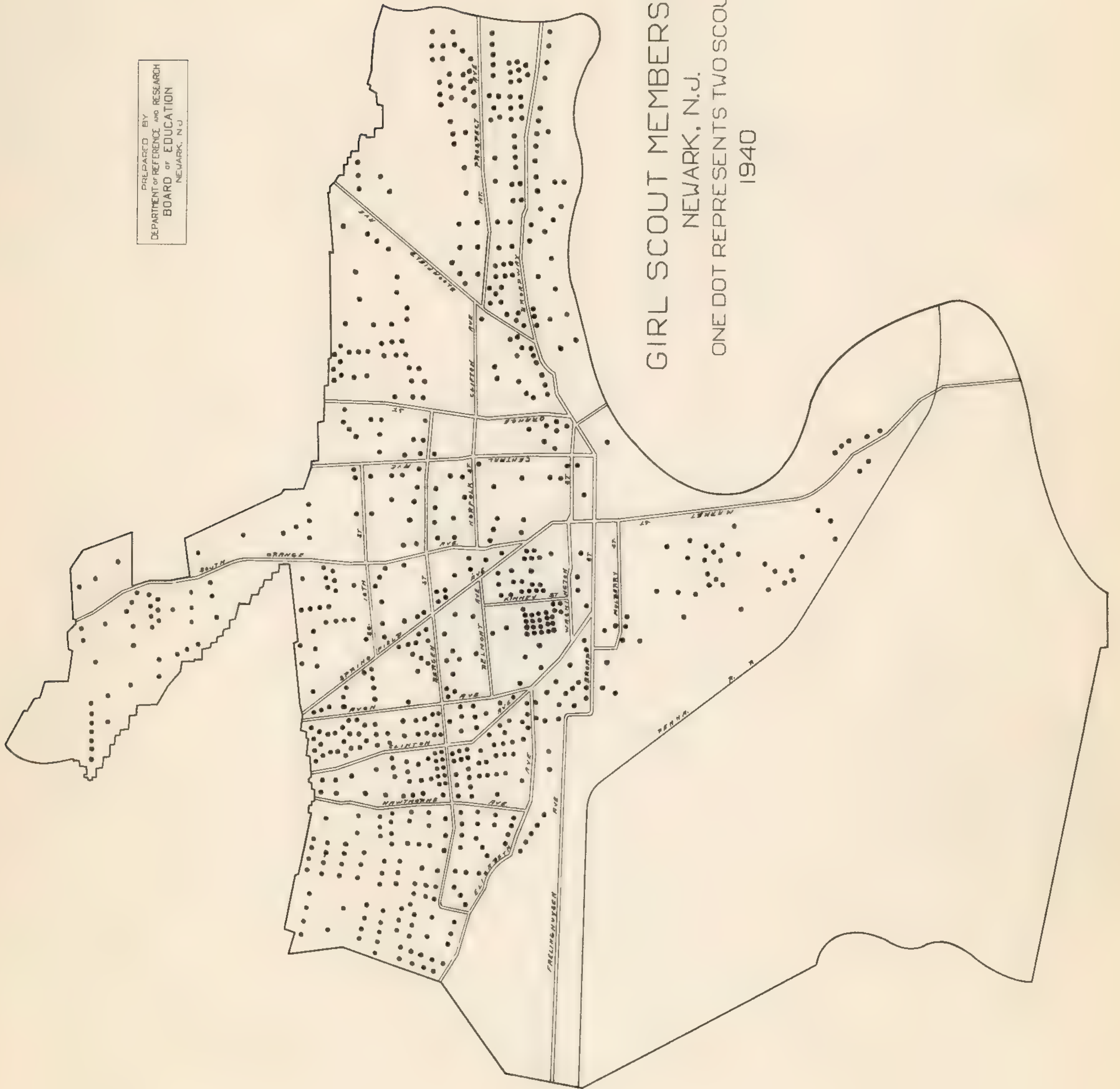
BOY SCOUT MEMBERSHIP
NEWARK, N.J.
ONE DOT REPRESENTS TWO SCOUTS
1940

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.

Map No. 13

Map No. 14

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



GIRL SCOUT MEMBERSHIP
NEWARK, N.J.
ONE DOT REPRESENTS TWO SCOUTS
1940

Map No. 14

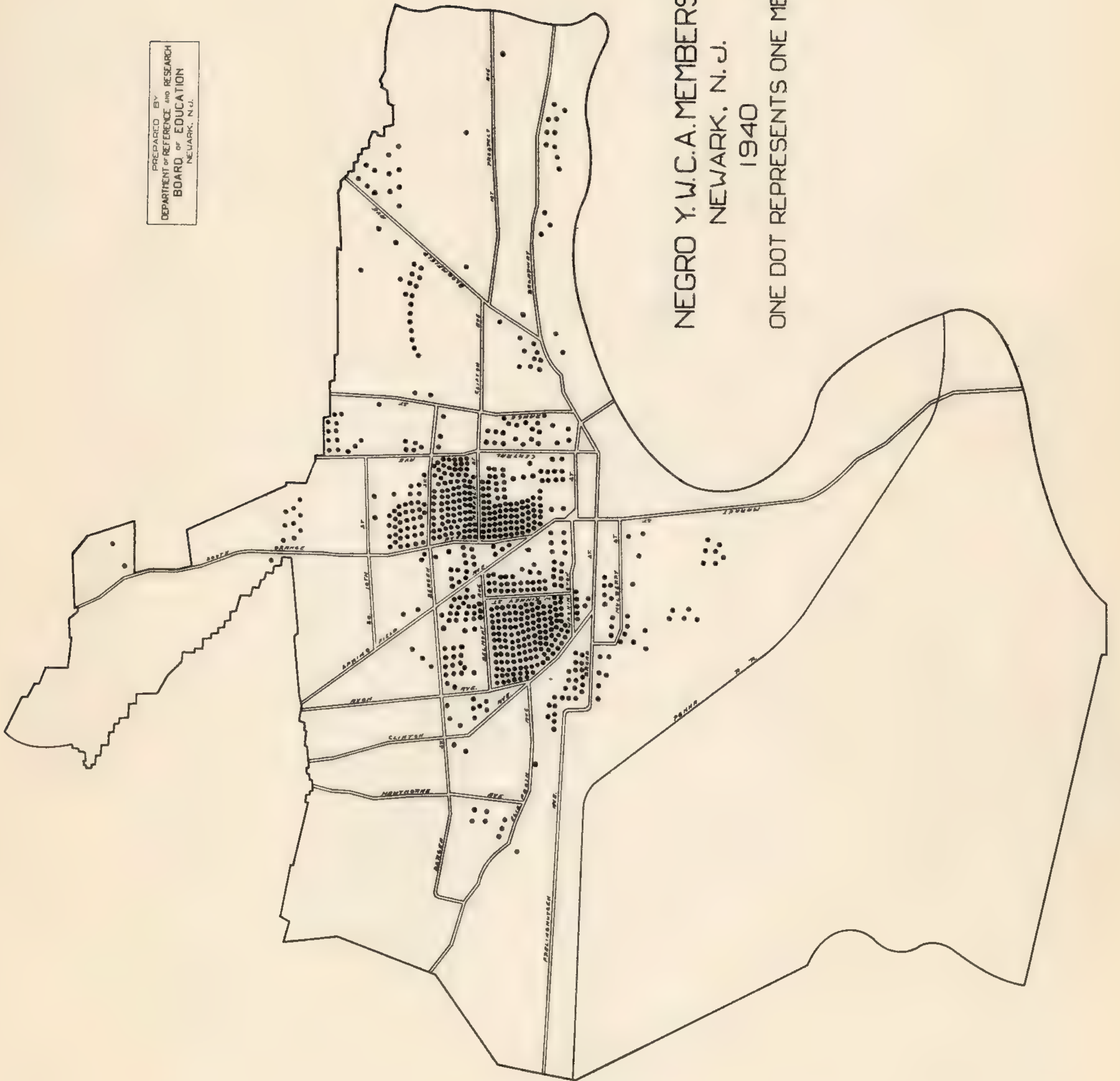
PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



NEGRO Y.M.C.A. MEMBERSHIP
NEWARK, N. J.
1940
ONE DOT REPRESENTS ONE MEMBER

Map No. 15

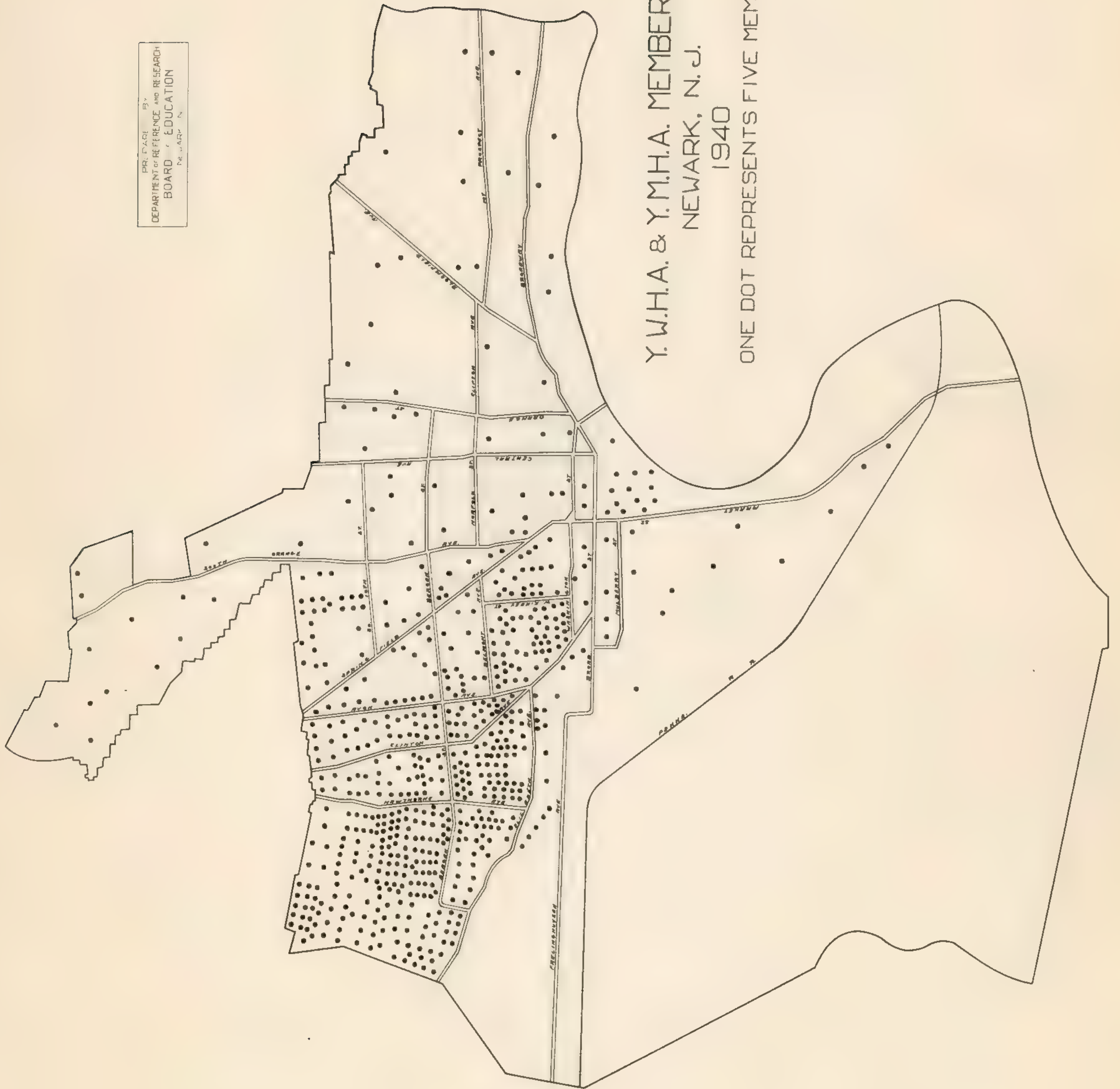
PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



NEGRO Y.W.C.A. MEMBERSHIP
NEWARK, N.J.
1940
ONE DOT REPRESENTS ONE MEMBER

Map No. 16

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N. J.



Y.W.H.A. & Y.M.H.A. MEMBERSHIPS
NEWARK, N. J.
1940
ONE DOT REPRESENTS FIVE MEMBERS

Map No. 17

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



Y.M.C.A. JUNIOR MEMBERSHIP
NEWARK, N.J.
1940
ONE DOT REPRESENTS ONE MEMBER

Map No. 18

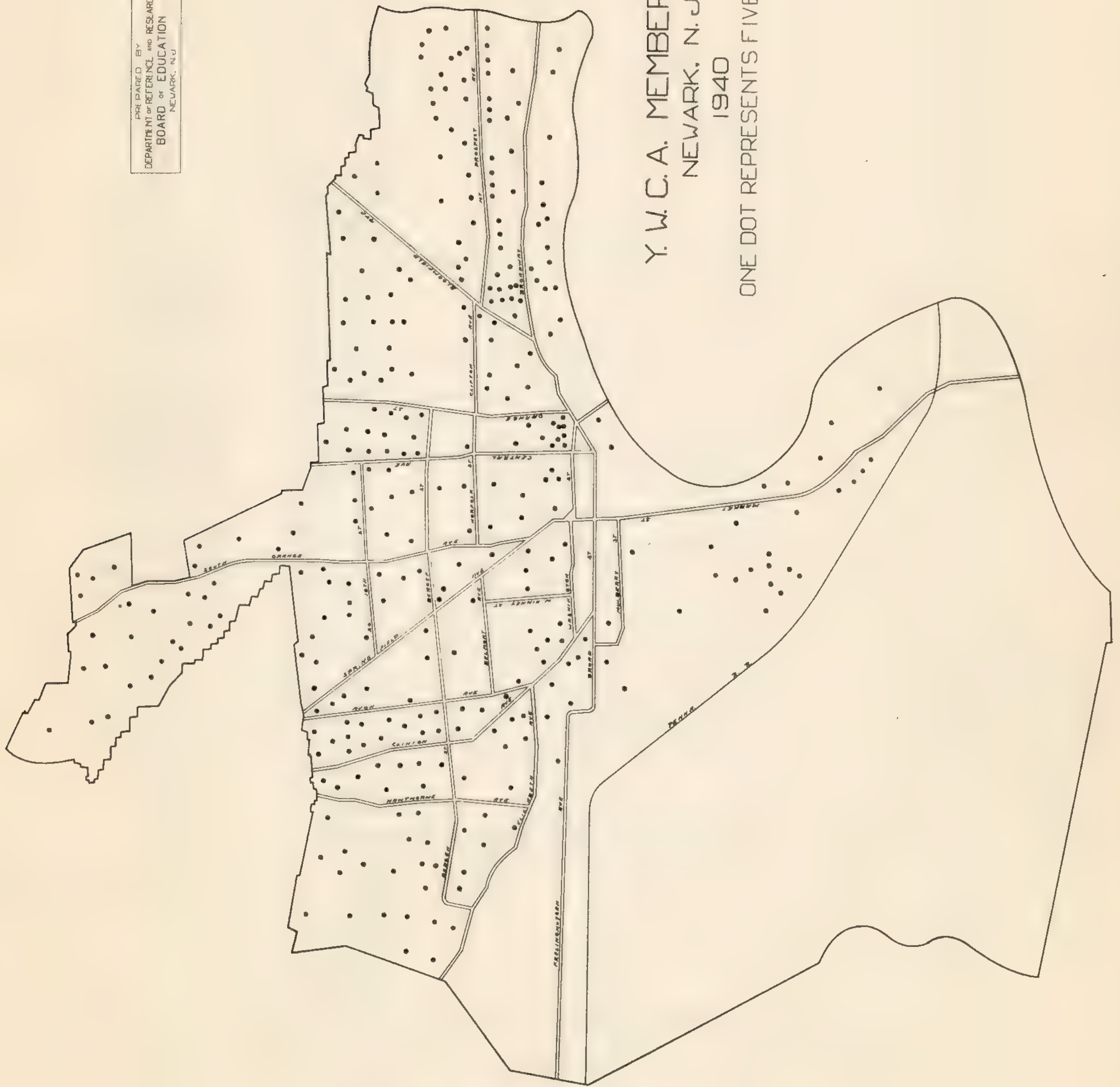
PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N. J.



Y.M.C.A. SENIOR MEMBERSHIP
NEWARK, N. J.
1940
ONE DOT REPRESENTS ONE MEMBER

Map No. 19

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



Y. W. C. A. MEMBERSHIP
NEWARK, N. J.
1940
ONE DOT REPRESENTS FIVE MEMBERS

Map No. 20

TABLE II
DISTRIBUTION OF ENUMERATION DISTRICTS
ACCORDING TO PER CAPITA MEMBERSHIP OF SEVEN SOCIAL AGENCIES
AND ENVIRONMENTAL CONDITIONS
NEWARK, NEW JERSEY - 1940

Environmental Rating	Members Per Capita 15 to 44 Years of Age						Total Districts
	.008 - .011	.012 - .023	.024 - .046	.047 - .082	.083 - .135	.136 - .204	
Superior			1	4	2	1	8
Good		1	12	19	15	1	48
Fair		10	38	44	13		105
Poor	3	23	39	29	11	1	106
Very Poor	1	11	17	12	2	1	44
Inferior		1	3	3		1	8

SCHOOL FACILITIES

It is desirable to consider the available facilities and physical plant in relation to community needs. Certain basic analyses are presented in this study. These include elementary-school building ratings, location of playgrounds which are supervised all year, and location of children who live more than one-quarter of a mile from any playground. Although these elements do not represent a complete picture of school-plant problems, they do show the need for a comprehensive analysis of the plant provisions.

Buildings

Maps Nos. 21, 22 show the location of elementary and high-school buildings in the City. The map of elementary schools has been drawn with circles of a one-half-mile radius. It is generally recognized that this radius represents the maximum distance which any elementary child should be required to go to school. The high-school map has been prepared with circles of a one-mile radius which is considered a maximum walking distance for high-school pupils.

The elementary-school map shows two principal residential areas more than one-half mile from an elementary school. These areas are those on Dayton Street at Weequahic Park and the district including the Stephen Crane Housing Project at the northern end of the City. A new school is being planned for Dayton Street which will take care of that area. The tremendous amount of overlapping which exists in the central section of the City should be made a subject of intensive study.



ELEMENTARY SCHOOLS

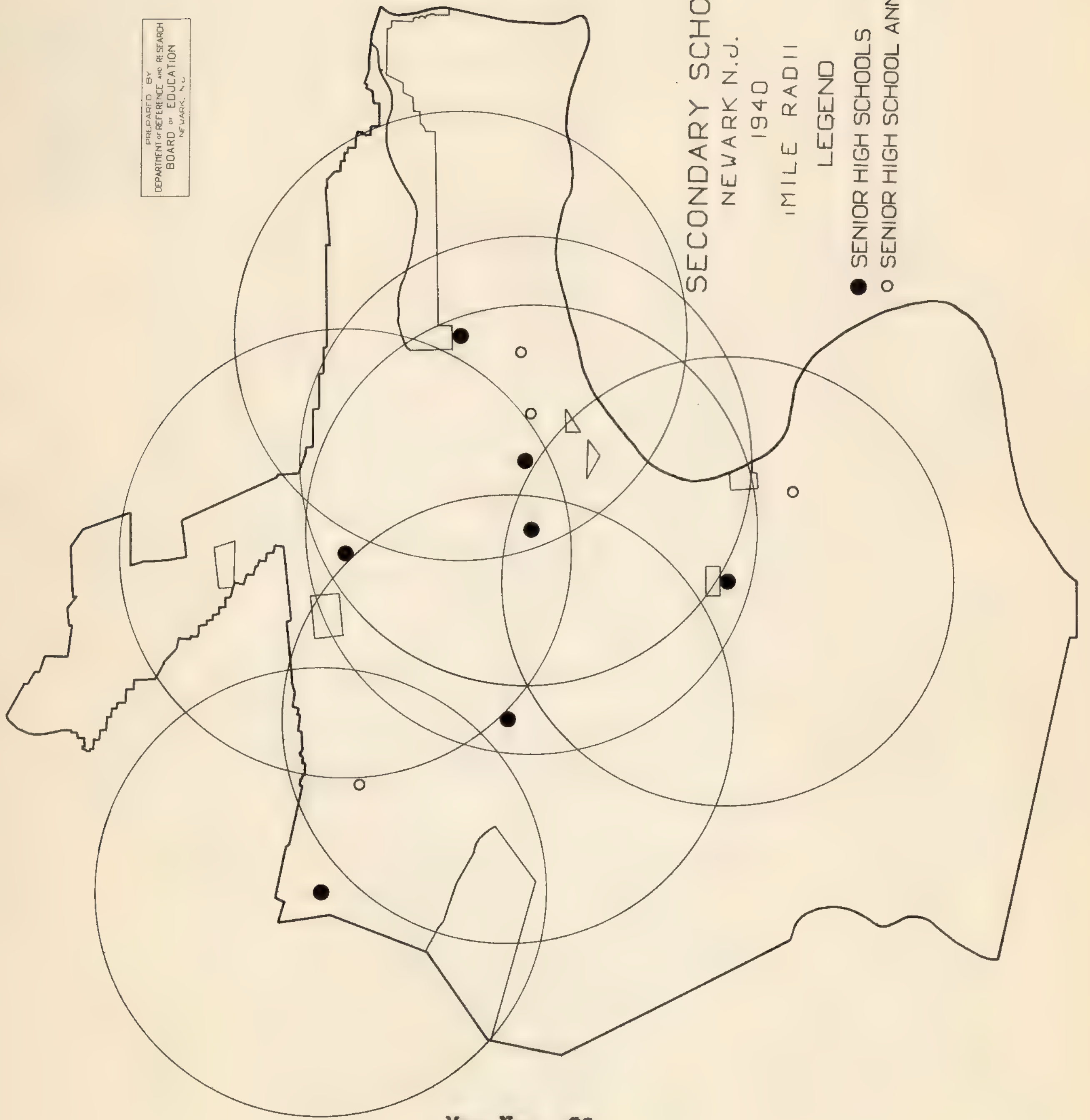
NEWARK N.J.

1940

1/2 MILE RADIUS

Map. No. 21

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



SECONDARY SCHOOLS
NEWARK N.J.

1940

1 MILE RADII

LEGEND

- SENIOR HIGH SCHOOLS
- SENIOR HIGH SCHOOL ANNEXES

Map No. 22

The secondary-school map also shows a considerable amount of overlapping. Future planning of high schools should be undertaken only after a thorough study of the distribution and adequacy of the present plant.

Map No. 23 shows the rating of school buildings based on the Strayer-Engelhardt Score Card. The score card serves as a basis for evaluating school plants. Strayer and Engelhardt make the following explanation of their rating system:*

"The major score card divisions are Site, Building, Service Systems, General Classrooms, Kindergarten, Special Activity Rooms, General Service Rooms, and Administration Rooms. *** The standards which have been set up under each subdivision are the ideals, incorporation of which into a school building would produce a 1,000-point score. A number of school buildings have been built in which practically all of these ideals have been followed. Experience, however, has shown that relatively few buildings score above 900 points out of a possible 1,000. An analysis of the scores allotted these buildings would show that they had not attained the ideal with reference to several phases of the standards. Buildings rating between 900 and 1,000 points are, however, satisfactory buildings, and communities which have been able to plan such structures are to be congratulated upon their achievement. Buildings scoring between 800 and 900 points are ordinarily satisfactory and require little or no alteration or addition to serve effectively the educational program of the school. Buildings scoring 700 to 800 points have usually been found satisfactory with reference to those spaces which have been provided within the building, but frequently important units have not as yet been included in the building or have only been planned for with reference to future additions. When such additions are made, the ratings in these buildings naturally will be raised. Buildings scoring 400 to 700 points have been found either markedly inferior in general or lacking in many important and essential units of service. Only by careful study of the detailed component scores can the cause of the low scores be specifically determined. Building scoring in this range are, as a rule, of such quality as to justify the expenditure of such additional

*Strayer, G.D. and Engelhardt, N.L., Standards for Elementary School Buildings, Pp. 4, 5. Bureau of Publications, Teachers College, Columbia University, New York City, 1933

funds as may be necessary to make them reasonably satisfactory. Buildings scoring less than 400 points have been found, as a rule, so inferior, either because of obsolescence or structural insecurity, that it is not advisable to expend any considerable amount of money in an effort to make them acceptable plants. The expenditure of funds on these buildings should be restricted to making them as safe and sanitary as possible for as long a time as circumstances compel their use. They should be abandoned as rapidly as the building program of the city can supply modern replacements."

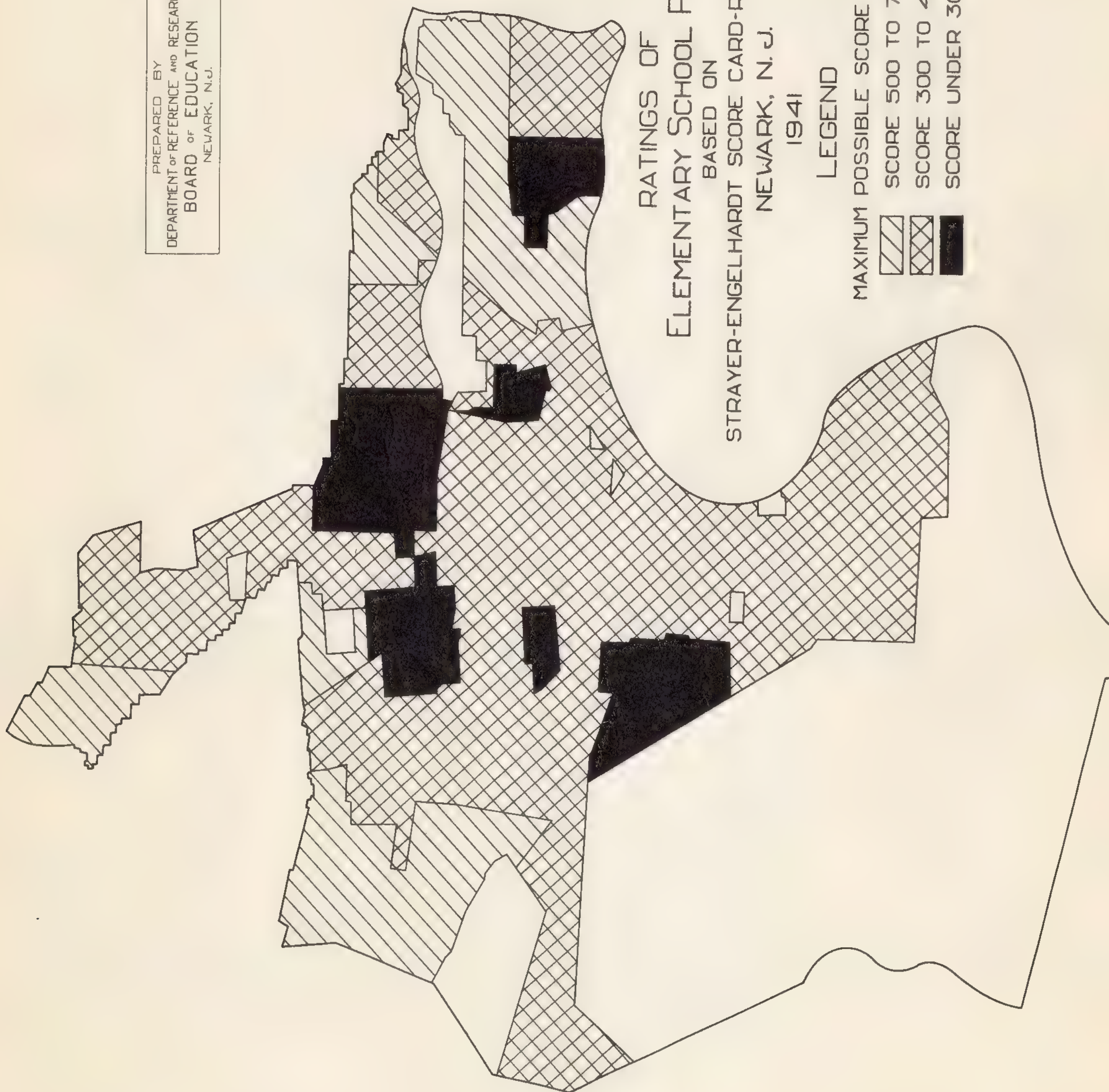
It is important to recognize that the good buildings are located in the better environmental districts of the City. The entire central section of the City is served by poor or inferior plants.

Playgrounds

Map No. 24 indicates the number of square feet of playground area provided per elementary-school pupil and supervised all year. In studying this map it is well to bear in mind that 100 square feet per pupil is recognized as desirable by most educators and recreation authorities.

Map No. 25 shows the location of all children kindergarten to eighth grade whose homes are located more than one-quarter mile from any school playground. Playgrounds which are more than one-quarter mile from the homes are of little value to young children during out-of-school hours, weekends, and holidays.

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N. J.

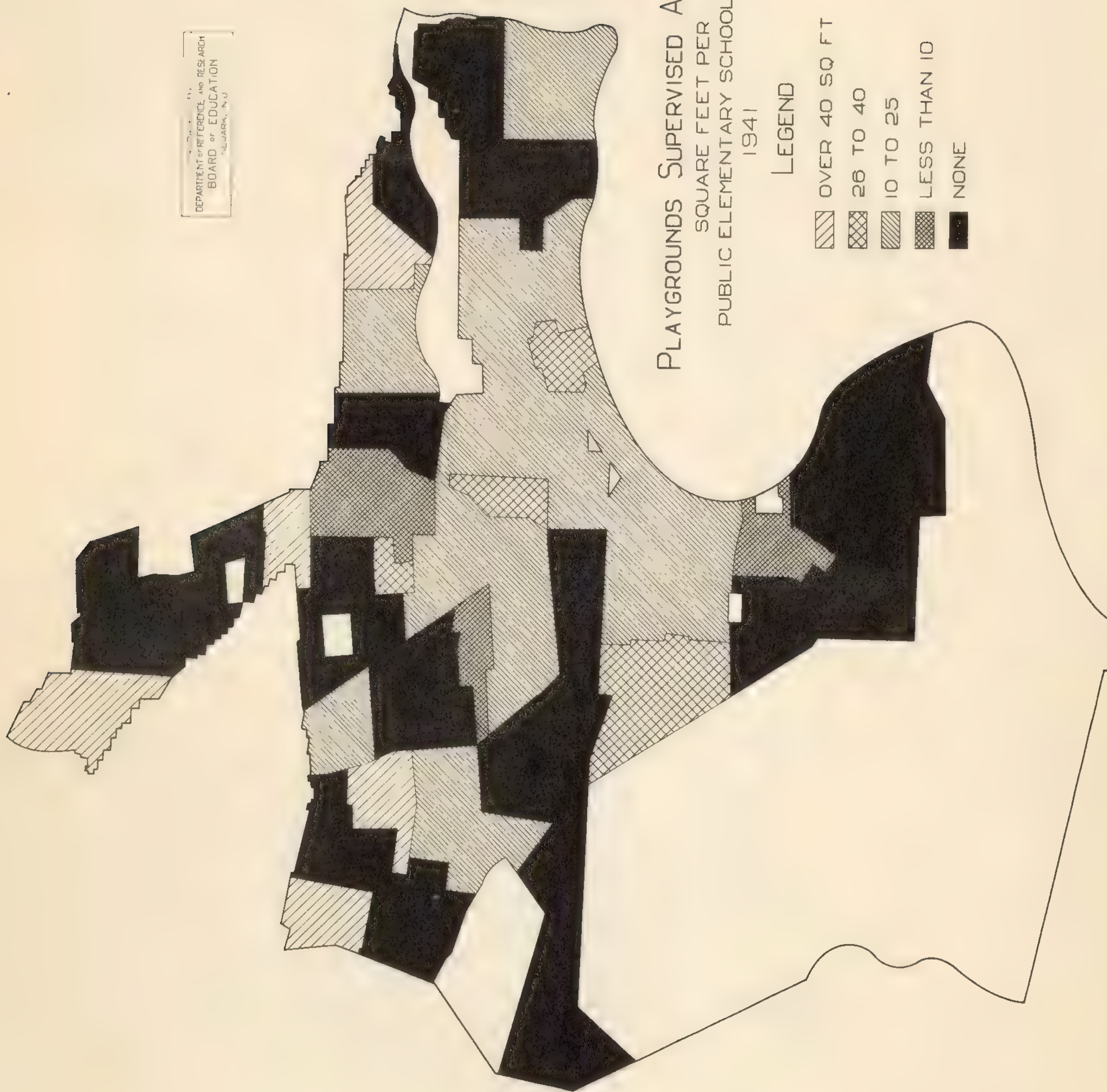


RATINGS OF
ELEMENTARY SCHOOL PLANTS
BASED ON
STRAYER-ENGELHARDT SCORE CARD-REVISION OF 1933
NEWARK, N. J.
1941

LEGEND
MAXIMUM POSSIBLE SCORE 1000
SCORE 500 TO 700
SCORE 300 TO 499
SCORE UNDER 300

Map No. 23

DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



Map No. 24

PREPARED BY
DEPARTMENT OF REFERENCE AND RESEARCH
BOARD OF EDUCATION
NEWARK, N.J.



PUBLIC ELEMENTARY SCHOOL PUPILS
LIVING MORE THAN 1/4 MILE
FROM ANY PLAYGROUND
NEWARK, N. J.
ONE DOT REPRESENTS FIVE PUPILS ON
ROLL MAY 31, 1939

Map No. 25

The following table shows the number of elementary-school children living more than one-quarter mile from any playground, classified according to home environment. It will be seen that 13,920 children are not properly served with playgrounds and 6,170 of these live in poor, very poor, or inferior environments where there is little provision for recreation in the homes.

Number Of Elementary School Children Living
More Than $\frac{1}{4}$ Mile From Any School Playground
Classified By Home Environment

<u>Home Environment Rating</u>	<u>Approximate Number of Children</u>	<u>Approximate Per Cent Of All Children 5-14 Years of Age</u>
Superior	350	44
Good	2135	33
Fair	5265	30
Poor	4625	21
Very Poor	1420	16
Inferior	125	16

N.J.

370.7

(G.9.2855)

N42R

Newark, N.J.-Board of Educ.-
Dept. of Ref. and Research
Social trends and the
schools. 1941.

THE PUBLIC LIBRARY
NEWARK, N. J.

Fines are charged on overdue items to
encourage prompt return so that they may
be available to others.

Your library card may be used at the Main
Library and any neighborhood branch library.

Do not remove date card from pocket

N.J.
370.7

N42R